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Mercury:

OR THE

SECRET and SWIFT

Messenger.

SHEWING,

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LONDON,

Printed for Rich. Baldwin, near the *Oxford-Arms* in *Warwick-Lane*. 1694.

128 1:16

TO THE

Right Honorable

GEORGE,

Lord *Berkley*, Baron of *Berkley*, *Mobray*, *Segrave*, and *Bruce*, and Knight of the Noble Order of the BATH.

MY LORD,

I *Do here once more present your Lordship with the fruit of my* leisure *Studies, as a Testimony of my readiness to serve you in those sacred matters, to which I devote my*

more serious *hours. I ſhould not have preſumed to this Dedication, had I not been encouraged by that generouſneſs and ſweetneſs of Diſpoſition, which does ſo eminently adorn your Lordſhips Place and Abilities.*

If your Lordſhip pleaſe to excuſe this boldneſs, and to vouchſafe this Pamphlet a ſhelter under your favourable Patronage, you ſhall thereby incourage me in thoſe higher Studies, which may be more agreeable to that relation, wherein I ſtand, as being

Your Lordſhip's Servant
and Chaplain,

J. W.

TO

TO THE READER.

THat which first occasioned this Discourse, was the reading of a little Pamphlet, stiled, *Nuntius Inanimatus*, commonly ascribed to a late Reverend Bishop; wherein he affirms that there are certain ways to discourse with a Friend, though he were in a close Dungeon, in a besieged City, or a hundred miles off.

Which promises, at the first perusal, did rather raise my Wonder than Belief, having before that time observed nothing that might give any satisfaction in these particulars. And I should have esteemed them altogether fabulous had it not been for the credit of their reputed Author.

After this, I did collect all such Notes to this purpose, as I met with in the course of my other Studies.

From whence when I had received full satisfaction, I did for mine own further delight compose them into this method.

I have already attained mine own ends, both in the delight of composing this, and the occasion of publishing it. And therefore need not either fear the Censure of others, or beg their Favour. I could never yet discern, that any Reader hath shewed the more Charity for the Author's bespeaking it. Farewell.

J. W.

TO

To Mercury *the Elder*,

On the moſt learned *Mercury* the Younger.

REſt Maja's *Son, ſometimes Interpreter*
Of gods, and to us men their Meſſenger;
Take not ſuch pains as thou haſt done of old,
To teach men Hieroglyphicks, *and to unfold*
Egyptian *hidden Characters, and how*
Men writ in dark obſcurity: For now
Trithemius *and* Selenus *both are grown*
Such Cryptographers, *as they ſcarce will own*
Thee for their Maſter; and Decipherers know
Such ſecret ways to write, thou ne'er didſt ſhow.
Theſe are but Artiſts which thou didſt inſpire;
But now thou of a Mercury *art Sire*
Of thine own name, a Poſt with whom the wind,
Should it contend, would be left far behind.
Whoſe meſſage as thy metal ſtrikes the gold,
Quite through a wedge of ſilver uncontrol'd,
And in a moments ſpace doth paſs as far
As from the Artick *to the* Antartick *Star.*

So

So proving what is ſaid of influence,
May now be ſaid of his intelligence,
They neither of them having ſuch a quality
As a relation to Locality:
No places diſtance hindring their Commerce,
Who freely traffick through the Univerſe;
And in a minute can a Voyage make
Over the Oceans univerſal Lake.
This Son of thine, could any words or praiſe
His Learning, Worth, or Reputation raiſe,
We ſhould be Suiters to him to beſtow
Encomiums *on* himſelf, *which* we *do owe*
Unto his worth, and uſe that Eloquence,
Which as his own, muſt claim preheminence:
For thee, 'tis Glory enough thou haſt a Son
Of Art, that hath thy ſelf in Art out-done.

Sir *Francis Kinaſton*, Kt.

To

To the unknown Author.

OF old who to the common good apply'd,
Or mind, or means, for it were *Deify'd*:
But chiefly ſuch, who new Inventions found;
Bacchus for Wine, *Ceres* that till'd the ground.
I know no reaſon time ſhould breed ſuch odds,
(W'have warrant for't) men now may be ſtil'd
By hiding who thou art, ſeek not to miſs, (gods.
The glory due to ſuch a Work as this;
But ſet thy name, that thou mayſt have the
Left to the *unknown God* we Altars raiſe. (praiſe,

Anthony Aucher, Eſq;

To

To my Friend the Author.

TO praiſe thy work, were to anticipate
Thy Reader's judgment, and to injure Fate;
Injuſtice to thy ſelf; for real worth
Needs not Arts flattery to ſet it forth.
Some chooſe ſelected Wits *to write, as* Friends,
Whoſe Verſes, when the work fails, make amends.
So as the buyer has his penny-worth,
Though what the Author write prove ſpumy froth.
Thou, of a humour croſs to that, haſt choſe
A Friend or two, whoſe Verſe hops like rough proſe,
From whoſe inexpert vain thou canſt not look
For lines that may enhance the price o'th' book.
Let it commend it ſelf, all we intend
Is but to ſhew the World, thou art our Friend.

Richard Hatton, *Eſq;*

To

To the Reader.

READER, this Author has not long ago
Found out another World to this below.
Though that alone might merit great renown,
Yet in this book he goes beyond the *Moon*.
Beyond the *Moon* indeed, for here you see
That he from thence hath fetcht down *Mercury*.
One that doth tell us things both *strange* and *new*;
And yet believe't they're not more strange than true.
I'm loth to tell thee what rare things they be,
Read thou the book, and then thou'lt tell them me.

Tob. Worlrich. I. C. Doct.

To

To his honoured Friend *J. W.* on his learned Tract,

The Secret and Swift Messenger.

INimitable Sir, we here discern
Maxims the *Stagirite* himself might learn.
Were *Plato* now alive he'd yield to You,
Confessing something might be *Known anew.*
Fresh Heresies (New-nothings) still appear
As *Almanacks*, the Births of every Year.
This *Dutch-man* writes a *Comment*; that *Translates*;
A third *Transcribes*; Your Pen alone *Creates*
New necessary Sciences; This Art
Lay undiscover'd as the Worlds fifth part.
But *Secrecy's* now publish'd; You reveal
By Demonstration how we may conceal.

Our *Legates* are but Men, and often may
Great State-affairs unwillingly betray:
Caught by some sifting Spies, or tell-tale *Wine*,
Which dig up Secrets in the deepest Mine.
Sometimes, like Fire pent in, they outward break,
And 'cause they should be silent, therefore speak.

Nor are Kings Writings safe; To guard their Fame,
Like *Scævola*, they wish their Hand i'th' Flame.
Ink turns to Blood; they oft participate
By Wax and Quill sad *Icarus* his Fate.
Hence Noble-mens bad writing proves a Plot:
Their Letters are but Lines, their Names a Knot.

But

But now they ſhall no more *Seal* their own *Fall*;
No Letters prove *Killing*, or *Capitall*.
Things paſs unknown, and each Ambaſſador's
Strict as the Breaſt of ſacred Confeſſors:
Such as the Inquiſition cannot ſee;
Such as are forc'd neither by Rack, nor Fee.
Swift Secrecy deſcends to Humane Powers;
That which was *Pluto*'s Helmet, now is Ours.
We ſhall not henceforth be in pay for air,
Tranſported Words being dear as precious Ware;
Our Thoughts will now arrive before they're ſtale;
They ſhall no more wait on the Carriers Ale,
And Hoſteſs, two Land-*Remoraes*, which bind
All to a *Tortoiſe* pace, though Words be Wind.
This Book's a better Ark; we brook no ſtay,
Maugre the deepeſt Flood, or fouleſt Way.
Commerce of Goods and Souls we owe to Two,
(Whoſe Fames ſhall now be Twins) *Noah* and You.
Each Bird is turn'd a *Parrot*, and we ſee
Æſop's Beaſts made more eloquent by thee.
Wooers again may wing their fetter'd Love,
By *Noah*'s truſty Meſſenger the *Dove*.
Torches which us'd only to help our ſight,
(Like heavenly fires) do give our Reaſon Light.
Deaths Harbingers, Arrows, and Bullets prove
Like *Cupid*'s Darts, Ambaſſadors of Love.
Then your diviner *Hieroglyphicks* tell,
How we may Landskips read, and Pictures ſpell.
You teach how Clouds inform, how Smoaks adviſe;
Thus Saints with Incenſe talk to *Deities*.

Thus

Thus by dumb Creatures we inſtructed are,
As the Wiſe Men were tutor'd by a Star.
Since we true *Serpents*-like, do little wrong
With any other member but the Tongue;
You tell us how we may by Geſtures talk:
How Feet are made to ſpeak, as well as walk:
How Eyes diſcourſe, how myſtick Nods contrive;
Making our Knowledge too, *Intuitive*,
A Bell no noiſe but *Rhetorick* affords;
Our Muſick Notes are Speeches, Sounds are Words.
Without a Trope there's Language in a *Flow'r*,
Conceits are ſmelt without a *Metaphor*.
Dark Subtleties we now ſhall ſoon define,
Each Organ's turn'd the ſenſe of *Diſcipline*.
'Tis to your Care we owe that we may ſend
Buſineſs unknown to any but our Friend.
That which is Engliſh Friendſhip to my Brother,
May be thought Greek or Non-ſenſe to another.
We now may *Homer*'s *Iliads* confine,
Not in a Nut-ſhell, but a Point, or Line.
Which Art though't ſeem to exceed Faith, yet who
Tries it, will find both Truth and Reaſon too.
'Tis not like Juglers tricks, abſurd, when ſhown;
But more and more admir'd, the more 'tis known.
Writing's an Act of Emanation,
And Thoughts ſpeed quick and far as day doth run.

Richard Weſt. C. C. Ox.

MERCURY,

THE

Secret and Swift

MESSENGER.

CHAP. I.

The Dependance of this Knowledge in Nature. The Authors that have treated of it. Its Relation to the Art of Grammar.

EVery rational Creature, being of an imperfect and dependant Happineſs, is therefore naturally endowed with an Ability to communicate its own Thoughts and Intentions; that ſo by mutual Services, it might the better promote it ſelf in the Proſecution of its own Well-being.

And becauſe there is ſo vaſt a difference betwixt a Spirit and a Body, therefore hath the Wiſdom of Providence contrived a diſtinct Way and Means, whereby they are each of them inabled to Diſcourſe, according to the Variety of their ſeveral Natures.

Aquinas, part 1. *Quæſt.* 107. *Zanch. de Operibus Dei, part* 1. *lib.* 3. *c.* 19.

The Angels or Spiritual Subſtances, *Per inſinuationem ſpecierum*, (as the Schoolmen ſpeak.) By inſinuating of the Species, or an unveiling of their own Natures in the Knowledge of ſuch Particulars as they would diſcover to another. And ſince they are of an *Homogeneous* and *immaterial* Eſſence, therefore do they hear, and know, and ſpeak, not with ſeveral parts, but with their whole Subſtance. And though the Apoſtle mentions the *Tongue of Angels*, yet that is only *Per conceſſionem, & ex hypotheſi.*

1 Cor. 13. 1.

But now, *Men* that have *Organical Bodies*, cannot communicate their Thoughts ſo eaſie and immediate a way. And therefore have need of ſome Corporeal Inſtruments, both for

for the *Receiving* and *Conveying* of Knowledge. Unto both which Functions, Nature hath deſigned ſeveral parts. Amongſt the reſt, the Ear is chiefly the Senſe of Diſcipline or *Learning*, and the Tongue the Inſtrument of *Teaching*. The Communion betwixt both theſe, is by Speech or Language, which was but one at firſt, but hath ſince been confounded into ſeveral kinds. And Experience now ſhews, that a man is equally diſpoſed, for the Learning of all, according as Education ſhall direct him. Which would not be, if (as ſome fondly conceive) any one of them were Natural unto us. For *Intus exiſtens prohibet alienum.* *Valleſius Sacr. Philoſ. cap. 3.*

Or ſuppoſe that a man could be brought up to the Speaking of another Tongue, yet this would not hinder, but that he ſhould ſtill retain his Knowledge of that which was Natural. For if thoſe which are gotten by Art do not hinder one another, much leſs would they be any *Cæl. Rhod. Ant. lect. lib. 2. 9. c. 14.*

impediment to that which is from Nature. And according to this it will follow, that moſt men ſhould be of a double Language, which is evidently falſe. Whence likewiſe you may gueſs at the Abſurdity of their Enquiries, who have ſought to find out the Primitive Tongue, by bringing up Infants in ſuch ſilent ſolitary places, where they might not hear the Speech of others.

Languages are ſo far Natural unto us, as other Arts and Sciences. A Man is born without any of them, but yet capable of all.

Now, becauſe *Words* are only for thoſe that are preſent both in *Time* and *Place*; therefore to theſe there hath been added, the Invention of *Letters* and Writing, which are ſuch a Repreſentation of our Words (though more permanent) as our Words are of our Thoughts. By theſe we may diſcourſe with them that are remote from us, not only by the diſtance of many Miles, but alſo of many

many Ages, *Hujus uſu ſcimus maximè conſtare humanitatem vitæ, memoriam, ac hominum immortalitatem*, ſaith *Pliny*. *Quid hoc magnificentius? Quid æque mirandum? in quod ne mortis quidem avida rapacitas jus ullum habeat*, ſaith *Rhodiginus*. This being the chiefeſt means, both for the promoting of Humane Society, and the perpetuating our Names unto following Times.

Nat. Hiſt. l. 14. c. 11.

Antiq. lect. l. 4. c. 3.

How ſtrange a thing this Art of Writing did ſeem at its firſt Invention, we may gueſs by the late diſcovered *Americans*, who were amazed to ſee men converſe with Books, and could ſcarce make themſelves believe that a Paper ſhould ſpeak; eſpecially, when after all their Attention and liſtning to any Writing (as their Cuſtom was) they could never perceive any Words or Sound to proceed from it.

There is a pretty Relation to this purpoſe concerning an Indian Slave, who being ſent by his Maſter, with

Hermannus Hugo de Orig. Scribendi. Præf.

a Basket of Figs and a Letter, did by the way eat up a great part of his Carriage, conveying the remainder unto the Perſon to whom he was directed, who when he had read the Letter, and not finding the quantity of Figs anſwerable to what was there ſpoken of, he accuſes the Slave of eating them, telling him what the Letter ſaid againſt him. But the Indian (notwithſtanding this proof) did confidently abjure the Fact, curſing the Paper, as being a falſe and lying Witneſs. After this, being ſent again with the like Carriage, and a Letter expreſſing the juſt number of Figs that were to be delivered, he did again, according to his former Practice, devour a great part of them by the way; but before he medled with any, (to prevent all following Accuſations) he firſt took the Letter, and hid that under a great Stone, aſſuring himſelf, that if it did not ſee him eat the Figs, it could never tell of him; but being now more ſtrongly

ſtrongly accuſed than before, he confeſſes the Fault, admiring the Divinity of the Paper, and for the future does promiſe his beſt Fidelity in every Imployment.

Such ſtrange Conceits did thoſe wilder Nations entertain, concerning this excellent Invention. And doubtleſs it muſt needs argue a vaſt Ability both of Wit and Memory in that man who did firſt confine all thoſe different Sounds of Voice, (which ſeem to be almoſt of infinite Variety) within the bounds of thoſe few Letters in the Alphabet.

The firſt Inventor of this was thought to be the Egyptian *Mercury*, who is therefore ſtiled the *Meſſenger* of the Gods. To which purpoſe the Poets have furniſhed him with Wings for *Swiftneſs* and diſpatch in his Errands. And becauſe the Planet of that name was thought to obſerve a more various and obſcure Revolution than any of the reſt, therefore likewiſe did they attribute unto him ſuch

Cic. lib. 3. de Na. Deor. Polyd. Virg. de Inventor. lib. 1 cap. 6. Voſſius de Grammatica, l. 1. c. 9. Natal. Comes Mythol. l. 5. c. 5.

Secret and ſubtle Motions, as might make him a truſty and private Meſſenger, and ſo the fitter for that Preferment to which for this Invention they had advanced him.

There is yet another way of diſcourſing, by Signs and Geſtures; and though it be not ſo common in *Practiſe* as either of the other, yet in *Nature* perhaps it is before them both, ſince Infants are able this way to expreſs themſelves, before they have the benefit of Speech.

But now, becauſe none of theſe ways in ordinary uſe, are either ſo *Secret* or *Swift* as ſome Exigencies would require; therefore many of the Ancients have buſied themſeves in a further Inquiry, how both theſe Deficiencies may be remedied; as conceiving that ſuch a Diſcovery would be of excellent uſe, eſpecially for ſome Occaſions that are incident to *Stateſmen* and *Soldiers*.

That the Ignorance of *Secret* and *Swift* Conveyances, hath often proved

ved Fatal, not only to the Ruin of particular perſons, but alſo of whole Armies and Kingdoms, may eaſily appear to any one that is but little verſed in Story. And therefore the redreſſing of theſe may be a Subject worth our enquiry.

Amongſt the Ancients that have moſt laboured in theſe Particulars, † *Æneas*, *Cleomenes*, and *Democritus*, (as they are cited by * *Polybius*) were for their Inventions of this kind, more remarkably eminent. And that * Author himſelf hath given us ſuch an exact Relation of the Knowledge of Antiquity in theſe things, that 'tis a wonder theſe following Ages ſhould either take no more notice, or make no more uſe of it. Beſides theſe, there is alſo *Julius Africanus*, and *Philo Mechanicus*, two ancient Grecians, who have likewiſe treated of this Subject.

† *Poliorcetica.*
* *Hiſt. l.* 10.

* *Polybius, ibid. juxta finem*

The Military Significations in uſe amongſt the *Romans*, are handled by † *Vegetius* and * *Frontinus*.

† *De re milit. l* 3. *c.* 5.
* *De Strat.*

Their

Their Notes of Secrecy, and Abbreviation in Writing, are largely set down by **Valerius Probus*, and *Pet. Diaconus*. There is likewise a Volume of these, set forth by *Janus Gruterus*, which for their first Invention are commonly ascribed unto *Cicero* and * *Seneca*.

* *L. de notis antiquis.*

* *The Father*

In latter times these particulars have been more fully handled by the Abbot [a] *Tritemius*, [b] *Theodorus Bibliander*, [c] *Baptista Porta*. *Cardan*. Subtil. *l.* 17. *de Var. C.* 12. 6. [d] *Isaac Casaubon*, [f] *Johannes Walchius*, [g] *Gustavus Selenus*, [h] *Gerardus Vossius*. [i] *Hermannus*, *Hugo*, and divers others in particular Languages.

[a] *Lib. de Polygraph. item de Stenograph.*
[b] *Tract. de ratione commun. linguarum.*
[c] *Lib. de Zyphris.*
[d] *Notis in Æneæ Poliorcetica.*
[f] *Fab.* 9.
[g] *de Cryptog.*
[h] *de Gram. Lib.* 1. *c.* 40.
[i] *Lib. de Or. Scrib.*

Amongst the rest, our English *Aristotle*, the learned *Verulam*, in that Work truly stiled the *Advancement of Learning*, hath briefly contracted the whole Substance of what may be said in this Subject. Where he refers it to the Art of *Grammar*, noting it as a deficient part. And in reference to this is it handled by most of those Authors who have treated of it.

De Augm. Scientiar. Lib. 6. *c.* 1.

That

That Art, in its true Latitude comprehending a Treaty, concerning all the ways of Diſcourſe, whether by Speech, or by Writing, or by Geſture, together with the ſeveral Circumſtances pertaining to them. And ſo this Subject belongs to the *Mint* of Knowledge, Expreſſions being currant for Conceits, as Mony is for Valuations. *Ibid.*

Now as it will concern a man that deals in Traffick, to underſtand the ſeveral kinds of Mony, and that it may be framed of other Materials beſides Silver and Gold: So likewiſe does it behove them, who profeſs the Knowledge of Nature or Reaſon, rightly to apprehend the ſeveral ways whereby they may be expreſſed.

So that beſides the uſefulneſs of this Subject, for ſome ſpecial Occaſions, it doth alſo belong unto one of the Liberal Arts.

From which Conſiderations we may infer, that theſe particulars are not ſo trivial, as perhaps otherways they

they would ſeem; and that there is ſufficient motive to excite any Induſtrious Spirit unto a further ſearch after them.

In this following Diſcourſe I ſhall enquire,

1. Concerning the *Secrecy* of means, whereby to communicate our Thoughts.

2. Concerning their *Swiftneſs*, or quick paſſing at any great diſtance.

3. How they may be both joyned together in the conveyance of any Meſſage.

In the proſecution of which, I ſhall alſo mention (beſides the true diſcoveries) moſt of thoſe other ways, whether *Magical*, or *Fabulous*, that are received upon common Tradition.

CHAP.

CHAP. II.

The Conditions requiſite to Secrecy: *The uſe of it in the* Matter *of Speech, either*

By { *Fables of the Heathen.* / *Parables of Scripture.*

TO the Exactneſs of Secrecy in any way of Diſcourſe, there are theſe two Qualifications requiſite.

1. That it be difficult to be unfolded, if it ſhould be doubted of, or examined.

2. That it be (if poſſible) altogether devoid of Suſpicion; for ſo far as it is liable to this, it may be ſaid to come ſhort in the very nature of Secrecy; ſince what is once ſuſpected, is expoſed to the danger of examination, and in a ready way to be diſcovered; but if not, yet a man is more likely to be diſappointed in his Intentions,

Intentions, when his Proceedings are miſtruſted.

Both theſe Conditions together are to be found but in few of the following Inſtances; only they are here ſpecified, to ſhew what a man ſhould aim at, in the Inventions of this nature.

The Art of ſecret information in the general, as it includes all ſignificatory Signs, may be ſtiled *Cryptomenyſis*, or private Intimations.

The particular ways of diſcourſing, were before intimated to be threefold.

1. By Speaking.
2. By Writing.
3. By Signs or Geſtures.

According to which variety, there are alſo different ways of Secrecy.

1. *Cryptologia.*
2. *Cryptographia.*
3. *Semæologia.*

Cryptologia, or the Secrecy of Speaking, may conſiſt either,

1. In

1. In the Matter.
2. In the Words.

1 In the *Matter:* When the thing we would utter is ſo concealed under the expreſſion of ſome other matter, that it is not of obvious conceit. To which purpoſe are the *Metaphors*, *Allegories*, and divers other Tropes of Oratory; which, ſo far as they concern the *Ornament* of Speech, do properly belong to *Rhetorick*, but as they may be applied for the *Secrecy* of Speech, ſo are they reducible unto this part of *Grammar*.

To this likewiſe appertains all that *ænigmatical* Learning, unto which not only the learned Heathen, but their gods alſo were ſo much devoted, as appears by the ſtrange and frequent Ambiguities of the *Oracles* and *Sybils*. And thoſe were counted the moſt profound Philoſophers amongſt them, who were beſt able for the Invention of ſuch affected Obſcurities.

Of this kind alſo were all thoſe myſterious *Fables*, under which the Ancients *Fables.*

Ancients did veil the secrets of their *Religion* and *Philosophy*, counting it a prophane thing to prostitute the hidden matters of either, unto vulgar apprehension. *Quia sciunt inimicam esse naturæ, apertam nudamque expositionem sui; quæ, sicut vulgaribus hominum sensibus, intellectum sui, vario rerum tegmine operimentoque subtraxit, ita à prudentibus arcana sua voluit per fabulosa tractari*, saith *Macrobius*. The gods and nature would not themselves have hidden so many things from us, if they had intended them for common understandings, or that others should treat of them, after an easie and perspicuous way: Hence was it that the learned men of former times were so generally inclined, to involve all their Learning, in obscure and mysterious Expressions. Thus did the *Egyptian* Priests, the *Pythagoreans*, *Platonicks*, and almost all other Sects and Professions.

In Somn. Scip. Lib. I. Cap. 2.

Parables.

And to this general Custom of those Ages (we may guess) the Holy Ghost

Ghost does allude, in the frequent *Parables* both of the Old and New Testament. *Parabola est sermo similitudinarius, qui aliud dicit, aliud significat*, saith *Aquinas*. It is such a Speech of Similitude, as says one thing and means another. The Disciples do directly oppose it to plain speaking, *Behold now speakest thou plainly, and no Parables.* Commen. in Isai. 14. John 16. 29.

And elsewhere 'tis intimated, that our Saviour did use that manner of teaching for the *Secrecy* of it: That those proud and perverse Auditors, who would not apply themselves to the Obedience of his Doctrine, might not so much as understand it. *To whom it is not given to know the mysteries of the kingdom of God, to them all things are done in Parables, that seeing they may see and not perceive, and hearing they may hear and not understand.* Mat. 13. 10, 11. Mark 4. 11, 12.

The Art of these, was so to imply a secret Argument, that the Adversary might unawares be brought over to Glos. Philo. l. 2. par. 1. Tract. 2. Sect. 5.

an acknowledgmeut and confeſſion of the thing we would have. Thus did *Nathan* unexpectedly diſcover to
2 Sam. 12. *David*, the Cruelty and Injuſtice of his proceedings in the caſe of *Uriah*. Thus did another Prophet make *Ahab* condemn himſelf, for ſuffering the King of *Syria* to eſcape. And by this
1 Kings 20. 39. means did our Saviour, in the Parable
Mat. 21. 33. of the Vineyard, and the unjuſt Huſband-man, force the unbelieving Jews to a ſecret acknowledgment of thoſe Judgments they had themſelves deſerved.

Of this nature was that Argument of an ancient *Orator*, who when the Enemies had propoſed Peace, upon this condition, that the City ſhould baniſh their Teachers and Philoſophers, he ſteps up and tells the People a Tale, of certain Wars betwixt the Wolves and the Sheep, and that the Wolves promiſed to make a League, if the Sheep would put away their Maſtiff-Dogs. By this means better inſtructing them of the danger

ger and madneſs there would be, in yielding to ſuch a Condition.

The Jewiſh Doctors do generally in their *Talmud*, and all their other Writings, accuſtom themſelves to a Parabolical way of Teaching; and 'tis obſerved, that many of thoſe horrid Fables that are fathered upon them, do ariſe from a miſapprehenſion of them in this particular. Whilſt others interpret that according to the *Letter*, which they intended only for the *Moral*. As that which one *Rabby* relates, concerning a Lyon in the Forreſt of *Elay*, that at the diſtance of four hundred Leagues, did with his roaring ſhake down the Walls of *Rome*, and make the Women Abortive. Wherein he did not affirm the exiſtence of any ſuch Monſter, but only intimate the terribleneſs and power of the Divine Majeſty. But this by the way.

Schickard Examen Comm. Rabbin dif. 7.

By this Art many men are able in their ordinary Diſcourſes, ſo ſecretly to convey their Counſels, or

reproofs, that none ſhall underſtand them, but thoſe whom they concern. And this way of teaching hath a great advantage above any other, by reaſon it hath much more power in exciting the Fancy and Affections. Plain Arguments and Moral Precepts barely propoſed, are more flat in their Operation, not ſo lively and perſwaſive, as when they ſteal into a man's aſſent, under the covert of a Parable.

To be expert in this particular, is not in every man's power; like Poetry, it requires ſuch a natural Faculty as cannot be taught. But ſo far as it falls under the rules and directions of Art, it belongs to the Precepts of *Oratory*.

In the general 'tis to be obſerved, That in theſe caſes a man muſt be very careful to make choice of ſuch a ſubject, as may bear in it ſome proper Analogy and reſemblance to the chief buſineſs. And he muſt before-hand in his thoughts, ſo aptly contrive the ſeveral parts of the Similitude, that they

they may fitly anſwer unto thoſe particular paſſages which are of greateſt conſequence.

CHAP. III.

Concerning that Secrecy of Speech, which conſiſts in the words, Either

By inventing new ones, as in { *Canting.* *Conjuring.*

Or by a changing of the known Language, whether { *Inverſion.* *Tranſmutation.* *Diminution.* *Augmentation.*

THe ſecret ways of Speaking, which conſiſts in the matter of Diſcourſe, have been already handled. Thoſe that are in the words are twofold. Either

1. By inventing new words of our own, which ſhall ſignifie upon compact.

2. Or by ſuch an alteration of any known Language, that in pronuncia-

tion it ſhall ſeem as obſcure, as if it were altogether barbarous.

To the firſt kind we may refer the *Canting* of Beggars; who though they retain the common Particles, yet have impoſed new names upon all ſuch matters as may happen to be of greateſt Conſequence and Secrecy.

And of this nature the Charms of Witches, and Language of Magicians ſeem to be. Though of theſe it may well be doubted, whether they have any ſignification at all. And if they have, whether any underſtand them but the Devil himſelf. 'Tis probable he did invent ſuch horrid and barbarous ſounds, that by them he might more eaſily delude the weak Imaginations of his credulous Diſciples. *Martinus de Arles*, an Archdeacon in *Navar*, ſpeaking of a Conjuring-book, that was found in a Pariſh under his Viſitation, repeats out of it theſe forms of diſcourſing with the Devil. *Conjuro te per ælim,*

Tract. de ſuperſtitionibus.

per

per ælion, per ſeboan, per adonay, per allelujah, per tanti, per archabulon, &c. And a little after, *Sitis alligati & conſtricti per iſta ſancta nomina Dei, Hir, ælli, habet, ſat, mi, filiſgæ, adrotiagundi, tat, chamiteram*, &c. And in another place, *Coriſcion, Matatron, Caladafon, Ozcozo, Toſiel*, &c.

In which forms the common Particles and words of uſual Sence, are plainly ſet down in ordinary Latin; but many of the other, which ſeem to have the greateſt Efficacy, are of ſuch ſecret ſence, as I think no Linguiſt can diſcover.

The Inventions of this kind do not fall under any particular Rule or Maxim, but may be equally infinite to the variety of articulate Sounds.

The ſecond way of ſecrecy in Speech, is by an alteration of any known Language, which is far more eaſie, and may prove of as much uſe for the privacy of it, as the other. This may be performed four ways. *Porta de furi. lit. l. 1. cap. 5. Selenus de Cryptographia, lib. 2. cap. 1.*

1. By *Inversion*, when either the *Letters* or *Syllables* are spelled backwards.

Mitto tibi M E T U L A S *cancros imitare legendo*, where the word *SALUTEM* is expressed by an inversion of the Letters. Or as in this other example, *Stisho estad, veca biti*, which by an inversion of the Syllables, is *Hostis adest, cave tibi.*

2. By *Transmutation*, or a mutual changing of one letter for another in pronunciation, answerable to that form of writing mentioned in the seventh Chapter. And though this may seem of great difficulty, yet use and experience will make it easie.

3. By *contracting* some words, and leaving part of them out; pronouncing them after some such way as they were wont to be both written and printed in ancient Copies. Thus *a͞a* stands for *anima*, *Arl's* for *Aristoteles*. But this can be but of small use in the English Tongue, because that does consist most of *Monosyllables*.

4. By

4. By *augmenting* words with the addition of other letters. Of which kind is that ſecret way of diſcourſing in ordinary uſe, by doubling the Vowels that make the Syllables, and interpoſing *G*. or any other Conſonant *K. P. T. R*, &c. or other Syllables, as *Porta lib. 1. cap. 5. de furtiv. liter. notis.* Thus if I would ſay, *Our Plot is diſcovered*, it muſt be pronounced thus, *Ougour plogot igis digiſcogovegereged.* Which does not ſeem ſo obſcure in writing, as it will in ſpeech and pronunciation. And it is ſo eaſie to be learnt, that I have known little Children almoſt as ſoon as they could ſpeak, diſcourſe to one another as faſt this way, as they could in their plaineſt Engliſh.

But all theſe latter kinds of ſecrecy in Speech, have this grand inconvenience in them, that they are not without ſuſpicion.

There are ſome other ways of ſpeaking by inarticulate ſounds, which I ſhall mention afterwards. Chap. 17. 18.

CHAP.

CHAP. IV.

Concerning the Secret Conveyances of any written Meſſage in uſe amongſt the Ancients,

Either by { *Land.* / *Water.* / *the open Air.* }

THe ſecrecy of any written Meſſage may conſiſt either in the { *Conveyance.* / *Writing.* }

1. In the *Conveyance*, when a Letter is ſo cloſely concealed in the carriage of it, as to delude the ſearch and ſuſpicion of the Adverſary. Of which kind the ancient Hiſtorians do furniſh us with divers relations, reducible in the general unto theſe three Heads. Thoſe that are

1. By Land.
2. By Water.
3. Through the open Air.

1. The

1. The ſecret Conveyances by Land, may be of numberleſs variety; but thoſe ancient Inventions of this nature, which to my remembrance are moſt obvious and remarkable, are theſe. 1 By Land.

That of *Harpagus* the *Mede* (mentioned by *Herodotus* and *Juſtin*) who when he would exhort *Cyrus* to a Conſpiracy againſt the King his Uncle, (and not daring to commit any ſuch Meſſage to the ordinary way of Conveyance, eſpecially ſince the King's Jealouſie had ſtopped up all paſſages with Spies and Watchmen) he puts his Letters into the Belly of a Hare, which, together with certain Hunters Nets, he delivered unto a truſty Servant, who under this diſguiſe of a Huntſman, got an unſuſpected paſſage to *Cyrus*. And *Aſtyages* himſelf was by this Conſpiracy bereaved of that Kingdom which was then the greateſt Monarchy in the World. *Herod. l.* 1. *cap.* 123. *Juſtin l.* 1.

To

Justin. l. 2. See the like related of *Hamucar. Ib. l. b. 21.*

To this purpose likewise is that of *Demaratus* King of *Sparta*, who being banished from his own Country, and received in the Persian Court, when he there understood of *Xerxes* his design and preparation for a War with *Greece*, he used these means for the discovery of it unto his Country-men. Having writ an Epistle in a * Tablet of Wood, he covered over the Letters with Wax, and then committed it unto a trusty Servant, to be delivered unto the Magistrates of *Lacedæmon*; who, when they had received it, were for a long time in a perplexed Consultation what it should mean, they did see nothing written, and yet could not conceive but that it should import some weighty Secret; till at length the King's Sister did accidentally discover the Writing under the Wax: By which means the *Grecians* were so well provided for the following War, as to give a Defeat to the greatest and most numerous

* Such as formerly they were wont to write upon, whence the phrase *Rasa tabula*, and *litera alturæ*.

merous Army that is mentioned in History.

The Fathers of the Council of *Ephesus*, when *Nestorius* was condemned, being strictly debarred from all ordinary ways of Conveyances, were fain to send unto *Constantinople* by one in the disguise of a Beggar. *Isaac Casa. Notis in Æneæ Poliorc. c. 31.*

Some Messengers have been sent away in Coffins as being Dead: Some others in the Disguise of Brute Creatures, as those whom *Josephus* mentions in the Siege of *Jotapata*, who crept out of the City by night like Dogs. *De Bello Judaic. l. 3. c. 8.*

Others have conveyed Letters to their imprisoned Friends, by putting them into the Food they were to receive, which is related of *Polycrita*. *Laurentius Medices* involving his Epistles in a piece of Bread, did send them by a certain Nobleman in the form of a Beggar. There is another relation of one, who rolled up his Letters in a Wax-candle, bidding the Messenger tell the Party that was to receive it, that the Candle would give him *Herman. Hugo de Orig. Scrib. c. 15. Solenn. de Cryptographia, l. 8. c. 7.*

him light for his buſineſs. There is yet a ſtranger Conveyance ſpoken of in *Æneas*, by writing on leaves, and afterwards with theſe leaves, covering over ſome ſore or putrid Ulcer, where the enemy would never ſuſpect any ſecret Meſſage.

Poliorcet. c. 31.

Others have carried Epiſtles inſcribed upon their own Fleſh, which is reckoned amongſt thoſe ſecret Conveyances mentioned by *Ovid.*

De Arte Amand.

Caveat hoc cuſtos, pro chartâ, conſcia tergum
Præbeat, inque ſuo corpore verba ferat.

But amongſt all the ancient Practiſes in this kind, there is none, for the Strangeneſs, to be compared unto that of *Hyſtiæus*, mentioned by *Herodotus*, and out of him in *Aulus Gellius*; who whilſt he reſided with *Darius* in *Perſia*, being deſirous to ſend unto *Ariſtagoras* in *Greece*, about revolting from the *Perſian* Government, (concerning

Herod. l. 5. c. 35. Noctes Attic. l. 17. c. 10.

cerning which they had before conferred together) but not knowing well how at that diſtance to convey ſo dangerous a buſineſs with ſufficient Secrecy, he at length contrived it after this manner: He choſe one of his Houſhold-Servants that was troubled with ſore Eyes, pretending that for his recovery his Hair muſt be ſhaved, and his Head ſcarrified; in the performance of which *Hyſtiæus* took occaſion to imprint his ſecret Intentions on his Servant's Head; and keeping him cloſe at home till his Hair was grown, he then told him, That for his perfect Recovery, he muſt Travel into *Greece* unto *Ariſtagoras*, who by ſhaving his Hair the ſecond time, would certainly reſtore him. By which relation you may ſee what ſtrange Shifts the Ancients were put unto, for want of Skill in this Subject that is here diſcourſed of.

'Tis reported of ſome fugitive Jews at the Siege of *Jeruſalem*, who more ſecurely to carry away their Gold, did *Joſeph. de Bello Juda. l. 6. c. 15.*

did first melt it into Bullets, and then swallow it down, venting it afterwards amongst their other Excrements. Now if a man had but his Faculty, who could write *Homer*'s *Iliads* in so small a Volume as might be contained in a Nut-shell, it were an easie matter for him, by this trick of the Jews, securely to convey a whole Packet of Letters.

Solin. Polyhist. c. 6.

2. By Water.

2. When all the Land-passages have been stopped up, then have the Ancients used other secret Conveyances by Water; writing their Intentions on thin plates of Lead, and fastning them to the Arms or Thighs of some expert Swimmer. * *Frontinus* relates, that when *Lucullus* would inform a besieged City of his coming to succour them, he put his Letters into two Bladders, betwixt which a common Souldier in the disguise of a Sea-monster, was appointed to swim into the City. There have been likewise more exquisite Inventions to pass under the Water, either by

De Strateg. l. 3. c. 13.

a

a mans ſelf, or in a Boat, wherein he might alſo carry proviſion, only having a long Trunk or Pipe, with a tunnel at the top of it, to let down freſh air. But for the prevention of all ſuch conveyances, the Ancients were wont in their ſtricteſt Sieges, to croſs the Rivers with ſtrong * Nets, to faſten ſtakes in ſeveral parts of the Channel with ſharp Irons, as the blades of Swords, ſticking upon them.

* *Plin. l.* 10. *c.* 37.

3. Hence was it that there have been other means attempted through the open Air, either by uſing Birds, as Pigeons and Swallows inſtead of Meſſengers, of which I ſhall treat more particularly in the ſixteenth Chapter. Or elſe by faſtning a writing to an Arrow, or the weight that is caſt from a ſling.

3. through the open Air.

Somewhat of this nature, was that intimation agreed upon betwixt *David* and *Jonathan*, though that invention does ſomewhat favour of the ancient ſimplicity and rudeneſs. It was a more exact invention mentioned by *Hero-*

1 Sam. 20.

Uranias ſive l. 8. *c.* 128.

dotus concerning *Artabazus* and *Timoxenus*, who when they could not come together, were wont to inform one another of any thing that concerned their affairs, by faſtning a letter unto an Arrow, and directing it unto ſome appointed place, where it might be received.

Polyænus, l. 2. See *Plutarch* in *Cimon.*

Thus alſo *Cleonymus* King of *Lacedæmon*, in the ſiege of the City *Trezene*, injoyned the Soldiers to ſhoot ſeveral Arrows into the Town, with notes faſtned unto them having this Inſcription, Ἥκω ἵν' πολιν ἐλευθερώσαν. *I come that I may reſtore this place to its Liberty.* Upon which the credulous and diſcontented Inhabitants were very willing to let him enter.

When *Cicero* was ſo ſtraightly beſieged by the *Gauls*, that the Soldiers were almoſt ready to yield; *Ceſar* being deſirous to encourage him with the news of ſome other Forces that were to come unto his aid, did ſhoot an Arrow into the City, with theſe words faſtned unto it, *Cæſar Ciceroni fiduciam*

fiduciam optat, expecta auxiliam. By which means the Soldiers were perſuaded to hold out ſo long, till theſe new Succours did arrive and break up the Siege.

The ſame thing might alſo be done more ſecurely, by rolling up a note within the head of an Arrow, and then ſhooting of it to a Confederates Tent, or to any other appointed place.

To this purpoſe is that which *Lypſius* relates out of *Appian*, concerning an ancient cuſtom for the beſieged to write their minds briefly in a little piece of lead, which they could with a ſling caſt a great diſtance, and exactly hit any ſuch particular place as ſhould be agreed upon, where the confederate might receive it, and by the ſame means return an anſwer. *Poliorcet. l. 4. c. Dialog. 2.* mentioned alſo by *Heliodor. Hiſt. Æthiop. l. 9.*

Of this nature likewiſe, are thoſe kind of Bullets, lately invented in theſe *German* Wars, in which they can ſhoot, not only Letters, Corn, and the like, but (which is the ſtrangeſt) Powder alſo into a beſieged City.

World in the Moon, chap. 14.

But amongſt all other poſſible conveyances through the Air, imagination it ſelf cannot conceive any one more uſeful, than the invention of a flying Chariot, which I have mentioned elſewhere. Since by this means a Man may have as free a paſſage as a Bird, which is not hindred either by the higheſt Walls, or the deepeſt Rivers and Trenches, or the moſt watchful Sentinels. But of this perhaps I may have occaſion to treat more largely in ſome other diſcourſe.

CHAP.

CHAP. V.

Of that ſecrecy which conſiſts in the materials *of writing, whether the Paper or Ink.*

THE ſeveral Inventions of the Ancients, for the private *conveyance* of any written meſſage, were the ſubject of the laſt Chapter.

The ſecrecy of *Writing* may conſiſt,

either in { The Materials, or The Form.

1. The *Materials* of writing are the Paper and Ink, (or that which is inſtead of them) both which may be ſo privately ordered, that the inſcribed ſence ſhall not be diſcoverable without certain helps and directions. *Selenus de Cryptogra. l. 8. c. 1.4.*

1. *The Paper.*

1. The chief contrivance of ſecrecy by the Paper, in uſe amongſt the Ancients, was the *Lacedemonian Scytale*, the manner of which was thus, There were provided two round ſtaves of an equal length and ſize, the Magiſtrates always retaining one of them at home, and the other being carried abroad by the General, at his going forth to War. When there was any ſecret buſineſs to be writ by it, their manner was to wrap a narrow thong of Parchment about one of theſe Staves, by a ſerpentine revolution, ſo that the edges of it might meet cloſe together; upon both which edges they inſcribed their Epiſtle, whereas the Parchment being taken off, there appeared nothing but pieces of letters on the ſides of it, which could not be joyned together into the right ſence, without the true *Scytale*. Thus is it briefly and fully deſcribed by *Auſonius*.

Vel

Vel Lacedemoniam Scytalen imitare libelli, *Ausonius ad Paulinum.*
Segmina Pergamei, tereti, circumdata ligno,
Perpetuo inſcribens verſu, deinde ſolutus,
Non reſpondentes ſparſo dabit ordine formas.

You may read in *Plutarch*, how by this means *Pharnabaz* did deceive *Lyſander*. *In Vita Lyſandri.*

'Tis true, indeed, that this way was not of ſuch inextricable ſecrecy, but that a little examination might have eaſily diſcovered it, (as *Scaliger* truly obſerves) however in thoſe Ages, which were leſs verſed in theſe kinds of Experiments, it ſeemed much more ſecret than now it does unto us; and in theſe times there are ſuch other means of private diſcourſing, which even *Scaliger*'s Eyes (as good as they were) could not diſcover. And therefore it was too inconſiderate and *Exerc.* 327.

magisterial a sentence of him, from thence to conclude all this kind of learning to be vain and useless, serving only for imposture, and to perplex the inquirer.

Vossius de Arte Gram. l. 1. c. 40.

'Tis certain that some occasions may require the exactest privacy; and 'tis as certain, that there may be some ways of secrecy, which it were madness for a man to think he could unfold. *Furori simile esse videtur, sibi aliquem persuadere, tam circumspectum, hominem esse posse, ut se à furtivo quodam scripto, abditaq; machinatione tueri possit: nam astans quilibet, vel procul distans loquitur, & factum nunciat, ut non solum à nemine percipiatur, sed ne sic quidem significare quippiam posse existemet*, saith *Vegetius*. And *Baptista Porta* (who had a strange and incredible ability in discovering of secret writings, yet doth ingeniously confess, *Multa esse posse furtiva scripta, quæ se interpretaturum quenquam polliceri, furorem ac delirium plane existimarem.*

Veget. de re milit. l. 3.

Proœm. l. 3. de furtivis notis.

So

So that though the ancient inventions of this kind, were too eaſily diſcoverable, yet *Scaliger* had no reaſon to conclude this to be a needleſs Art, or that therefore he could unfold any other way that might be invented. But this by the way.

2. The other material of writing is the Ink, or that liquor which is uſed inſtead of it, by which means alſo, there are ſundry ways of ſecrecy, commonly mentioned in natural *Magick*. 2. The Ink. *Porta Magiæ, l. 16. Wecker. de Secret. l. 14. Joach. Fortius Experient.*

Thus if a man write with ſalt *Ammoniack*, diſſolved in water, the letters will not appear legible, till the paper be held by the fire: This others affirm to be true alſo in the juyce of Onions, Lemons, with diverſe the like acid and corroding moiſtures. *Cardan. Subt. l. 17. Item de varietate, l. 12 c. 61.*

And on the contrary, thoſe letters that are written with diſſolved Allum, will not be diſcernable till the paper be dipped in water. *Ibid.*

There are ſome other Juices that do not appear, till the paper be held betwixt a Candle and the Eye. *Bibliander de Ratione com. linguarum.*

That

That which is written with the water of putrified Willow, or the diſtilled Juice of Glow-worms, will not be viſible but in the dark, as *Porta* affirms from his own experience.

De furtiv. lit. l. 1. c. 15.

There is alſo a ſecret way of writing with two ſeveral Inks, both of them alike in colour, but the one being of that nature, that it will eaſily be rubbed or waſhed off, and the other not.

A man may likewiſe write ſecretly with a raw Egg, the letters of which being throughly dried, let the whole paper be blacked over with Ink, that it may appear without any inſcription, and when this Ink is alſo well dried, if you do afterwards gently ſcrape it over with a Knife, it will fall off from thoſe places, where before the words were written.

Thoſe letters that were deſcribed with Milk, or Urin, or Fat, or any other glutinous moiſture, will not be legible unleſs duſt be firſt ſcattered upon them, which by adhering to thoſe places,

places, will discover the writing. This way is mentioned by *Ovid*, *De Art. Amand.*

Tuta quoque est, fallitque oculos è lacte recenti
Litera, carbonis pulvere tange, leges.

And 'tis thought that *Attalus* made use of this device, the better to excite the courage of his Soldiers. Being before the Battel to sacrifice to the gods for success, as he pulled out the intrails of the Beast, he described upon them these words, *Regis Victoria*, which he had before written backward in his hand with some gummy juice. The intrails being turned up and down by the Priest, to find out their signification, the letters did by that means gather so much dust as to appear legible. By which *omen* the Soldiers were so strangely heightned in their hopes and valour, that they won the day.

Unto

Gust. Selenus de Cryptographia, l. 8. c. 3.

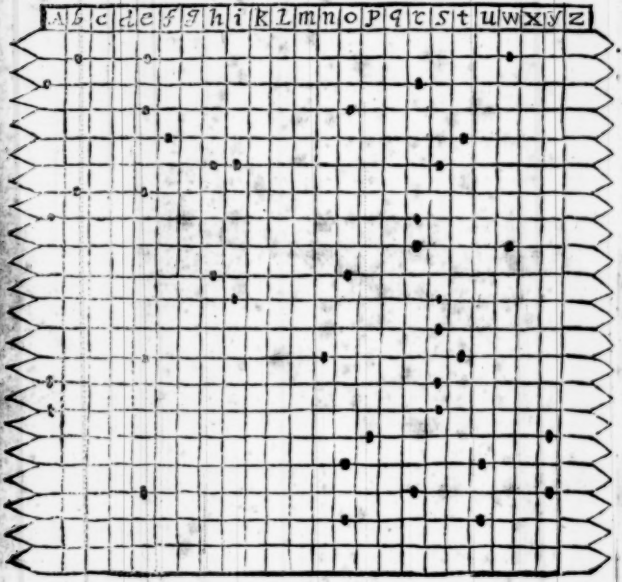
Unto these Experiments of secrecy in the *Materials* of writing, some add those other ways of expressing any private intimation by drawing a string through the holes of a little Tablet or Board; these holes should be of the same number with the letters, unto which by compact they should be severally applied. The order of the threads passing through them, may serve to express any words, and so consequently any sence we would discover.

To this purpose likewise is that other way of secret information, by divers knots tied upon a string, according to certain distances, by which a man may as distinctly, and yet as *Secretly*, express his meaning, as by any other way of discourse. For who would mistrust any private News or Treachery to lye hid in a thread, wherein there was nothing to be discerned, but sundry confused knots, or other the like marks?

The

The manner of performing it is thus: Let there be a ſquare piece of plate, or Tablet of Wood like a Trencher, with the twenty four Letters deſcribed on the top of it, at equal diſtances, and after any order that may be agreed upon before-hand, on both the oppoſite ſides, let there be diverſe little teeth, on which the ſtring may be hitched or faſtned for its ſeveral returns, as in the following figure.

Where



Where the ſtring is ſuppoſed to be faſtned by a loop on the firſt tooth, towards the letter A, and afterwards to be drawn ſucceſſively over all the reſt. The marks upon it do expreſs the ſecret meaning. *Beware of this Bearer*

Bearer who is ſent as a Spy over you. When it is taken off, and ſent to a Confederate, he may eaſily underſtand its intention, by applying it to his own Tablet, which muſt be anſwerable unto this. The inſtrument may be made much longer than is here expreſſed; but if the matter to be revealed ſhould happen to be more than the Tablet would bear, then may it be ſupplied either by another ſtring, or elſe by beginning again with that part of the ſame ſtring, wherein the laſt letter was terminated.

There may be divers other inventions of this kind, but I have not obſerved any more remarkable, than thoſe which are already mentioned.

CHAP.

CHAP. VI.

Secret writing with the common letters, by changing of their places.

THat ſecrecy which does conſiſt in the form of writing, is when the words or letters are ſo framed by compact, that they are not of ordinary ſignification. The inventions of this kind may, both for their pleaſure and benefit, juſtly challenge a place amongſt our other ſtudies.

Selenus de Cryptographia, l. 2. c. 5. Ars notarum occultandi inter artes Subtilitate præſtantes annumeranda eſt. Cardan. Subtil. l. 17.

St. *Auſtin* ſpeaking of ſuch human inventions as are to be embraced or avoided, and rejecting all magical Inſtitutions and Commerce with the Devil, he adjoyns, *Ea verò quæ hominum cum hominibus habent, aſſumenda, & maxime literarum figuræ*, &c. *Ex eo genere ſunt etiam notæ, quas qui didicerunt, proprie notarii appellantur. Utilia ſunt iſta, nec diſcuntur illicite, nec ſuperſtitioſe implicant, nec luxu*

De Doctrin Chriſtiana, l. 2. c. 26.

luxu enervant, ſi tantum occupent, ut majoribus rebus, quibus inſervire debent, non ſint impedimento.

This way of ſecret writing may be contrived, either

1. By the common letters.
2. Or by ſome invented notes and characters inſtead of them.

Both theſe being diſtinguiſhable into thoſe kinds that contain either,

1. Equal.
2. Or more.
3. Or fewer ſigns than are naturally required to the true framing of the word.

The particulars of theſe may be altered to ſuch great variety as cannot be reckoned, and therefore I ſhall ſpecifie thoſe only which ſeem moſt remarkable, either for their Antiquity or Uſefulneſs.

The way of ſecret writing by equal letters, is either by changing of

1. Their places, or
2. Their powers.

1. By altering of the places;

Either of the { Lines / Letters. / Both.

1. By transposing the lines.

1. A man may obſcure the ſenſe, by perplexing the order of the *Lines*. If they be written, not only from the left hand to the right, but alſo from the right hand to the left, as in the Eaſtern Languages, or from the top to the bottom, and ſo upward again, as is commonly related to be uſual amongſt the Inhabitants of *Taprobana* in the South-Sea, with thoſe in *China* and *Japan*. According to this following example.

Diodor. Sic. Biblioth. l. 2. Herman. Hugo de Orig. Scrib. c. 8.

e	r	f	d	l	e	e	l	l	t
i	e	t	o	o	ſ	w	i	i	h
l	ſ	u	u	h	h	s	n	t	e
p	h	o	t	o	a	v	c	s	p
p	a	h	t	t	l	t	r	h	e
u	n	t	h	e	l	s	e	t	s
ſ	d	i	e	l	n	g	a	o	t
y	ſ	w	ſ	b	o	n	ſ	d	i
d	p	e	i	a	t	o	e	c	l
e	e	g	e	e	b	m	a	n	e

In

In the reading of which, if you begin at the firſt letter towards the right hand, and ſo downwards, and then upwards again, you may find theſe words expreſſed.

The Peſtilence doth ſtill increaſe amongſt us, we ſhall not be able to hold out the Siege without freſh and ſpeedy ſupply.

2. A man may obſcure the ſenſe of his writing, by tranſpoſing each *Letter* according to ſome unuſual order. As ſuppoſe the firſt letter ſhould be at the latter end of the line, the ſecond at the beginning, or the like. 2 By tranſpoſing the letters.

3. The meaning of any written meſſage may be concealed, by altering the order both of the *letters* and the *lines* together. As if a man ſhould write each letter in two ſeveral lines, thus, 3 By tranſpoſing both the lines and letters.

Teoliraelmsfmſesplvoweutel
hfudesralotaihd,upysr emsyid

The Souldiers are almoſt famiſhed; Supply us, or we muſt yield.

This way may be yet further obſcured, by placing them in * four lines, and after any diſcontinuate order. As ſuppoſe that the firſt letter be in the beginning of the firſt line, the ſecond in the beginning of the fourth line, the third in the end of the firſt, the fourth in the end of the fourth, the fifth in the beginning of the ſecond line, the ſixth in the beginning of the third, the ſeventh in the end of the ſecond, the eighth in the end of the third, and ſo of the reſt. As in this example,

* Or as many more as the length of the Epiſtle ſhall require.

W m r p i t a h h s c t e i n p k e
h a t h f o n o i h k f t o e n i l
a n o e r r o c g t t t h m n v r l
e a u o m h t e i n l e n e t t e ſ

Which in its reſolution is this:

We ſhall make an Irruption upon the Enemy, from the North, at ten of the clock this night.

Walchius Fab. 9.

This way will yet ſeem more obſcure, if each line be ſevered into ſuch words as may ſeem barbarous.

All

All these kinds may be varied unto divers other more intricate Transpositions, according as a mans fancy or occasion shall lead him.

CHAP. VII.

Concerning secret writing with equal letters, by changing their powers. *The use of this amongst the* Jews *and* Romans. *The Key-character.*

AS a written message may be concealed by changing the places of the letters, so likewise by changing of their *Powers*, putting one of them for another, as suppose L for A, and A for L or the like. Answerable to that kind of Cabalism in the Jewish Learning, which the Rabbies call צירוף or *Combinatio*, when the letters of the Alphabet are severally transposed, and taken one for another, after any known order. Of which there be as many kinds, as there may

Shickard in Bechinath. Haperuf. Disp. l. 4. Glassius Philolog. l. 2. part 1. tract. 2. sect. 3. act. 7.

be ſeveral combinations of the letters. But amongſt the reſt, they obſerve two of more frequent uſe. The firſt is ſtiled from the four firſt correſpondent letters אלבם *Albam*; in which they are thus oppoſite to one another.

א ב ג ד ה ו ז ח ט י כ
ל מ נ ס ע פ צ ק ר ש ת

The other is from the ſame reaſon called אתבש *Athbaſh*, wherein the letters are thus mutually oppoſed,

א ב ג ד ה ו ז ח ט י כ
ת ש ר ק צ ל ע ס נ מ ל

Both theſe kinds of ſecret writing, the Jewiſh Doctors think to be frequently uſed by the ſacred Pen men of Holy Writ, amongſt whom the Prophet *Iſaiah* and *Jeremiah* are obſerved to be of more eſpecial note for their skill in Cabaliſms.

By the firſt of theſe combinations called *Albam*, that place of *Iſaiah* 7.6. is uſually interpreted, where there is a perſon

perſon mentioned under the unknown name of טבאל *Tabeal*, whom the Prophet affirms to aſpire unto the Crown of *Judah*, meaning by a ſecret tranſmutation of the letters ומלה *Remaliah* the King of *Iſrael*, whom he was loath more expreſly to nominate. And therefore he veils it by this kind of ſecrecy, inſtead of ר writing the letter above it ט; for ם the correſpondent letter ב, and ſo ל for א, and א for ל. Which being joyned together, do make טבאל, inſtead of רמלה.

By the ſecond of theſe combinations called *Athbaſh*, is that place *Jerem.* 51. 1. tranſlated; where by the original לב קמי *Cor inſurgentium contra me*, is meant כשדים the Chaldeans; and therefore both the *Targum* and the *Septuagint* do unanimouſly tranſlate it ſo, as if in their verſion of it, they had chiefly reſpected unto this kind of Cabaliſm. So likewiſe in 41. verſe of the ſame Chapter, by the fained name of ששך is meant בבל.

Item c. 25. *v.* 26. *fide Hieron. com. in eundem locum.*

Sueton. in vitâ ejus Aul. Gellius Noct. Attic. l. 17. c. 9.

This way of secret writing, hath been also in use amongst the ancient Romans: Thus *Suetonius* relates of *Julius Cæsar*, when he would convey any private business, he did usually write it, *per quartam elementorum literam*, that is D for A, E for B, and so of the rest. After this order,

d e f g h i k l m n o p q r s t v w x y z a b c
a b c d e f g h i k l m n o p q r s t u w x y z

Hasten unto me.

Ldwxhq yqxr ph.

And the same Author reports of *Octavius Augustus*, that in the writing of his secrets, he did *Secundum elementum proprii loco substituere*, set down the second letter for the first, as B for A, C for B, and for A a double x x.

But now, because such an Epistle might be easily unfolded, being altogether written by the same way; therefore this kind of secrecy, hath by later invention, been further obscured, by writing each several word or line, or letter, by a divers Alphabet.

For

For the performance of this, two Friends muſt before-hand by compact, agree upon ſome certain form of words, that may be inſtead of a key, ſerving both to cloſe, and to unlock the writing; which words would be leſs diſcoverable, if they be barbarous and of no ſignification.

But for the eaſier apprehending of this, I ſhall explain it in an example.

Suppoſe the key agreed upon, were only this one word *Prudentia*.

Having firſt framed ſeveral Alphabets according to each of its letters: Thus

Abc

A	bc	def	ghi	klm	nop	qrs	tuw	xyz
P	qr	ſtv	wxy	zab	cde	fgh	ikl	mno
R	st	uwx	yza	bcd	efg	hik	lmn	opq
U	wx	yza	bcd	efg	hik	lmn	opq	rst
D	ef	ghi	klm	nop	qrs	tuw	xyz	abc
E	fg	hik	lmn	opq	rst	uwx	yza	bcd
N	op	qrs	tuw	xyz	abc	def	ghi	klm
T	uw	xyz	abc	def	ghi	klm	nop	qrs
I	kl	mno	pqr	stu	wxy	zab	cde	fgh
A	bc	def	ghi	klm	nop	qrs	tuw	xyz

I may write each line, or word, or letter, according as the order of theſe Alphabets ſhall direct. As in theſe

1. In the lines.

Ixt hdkasytgh bkiycn
xfi nrel fx matlmrck ;
npkkfs pn, im oczs qdff
uhyrox xr xlh hqmpmh.

2. In

2. In the words.

Ixt kfmcuawik gpodhs
iru aery bs oiwnotem;
bdyytg vs, dg lzwp qdff
uhyrox ys gur ygcfcy.

3. In the letters.

Izz wshemitin in pzgcwy
vfm zean xfkaxxznebr
skgkoc hm, xr izzb awet
rtm iox gh cht whmqwy.

Which examples being unfolded, do each of them expreſs this inward meaning.

The Souldiers mutiny
for want of Victuals;
Supply us, or they will
Revolt to the enemy.

Theſe ways may be yet further obſcured, if the firſt Alphabet, (according

ing to which the reſt are deſcribed) be contrived after any mixed order. As ſuppoſe inſtead of the ordinary A b c, &c. there be written theſe letters after this manner.

R z k m p s e b l a u f t c y g w h x o q i n d.

And then will they be liable to all thoſe other differences of ſecrecy, that are uſually invented by the *Wheel-character*, which you may ſee largely deſcribed by *Porta*.

There may be divers other ways to this purpoſe, but by theſe you may ſufficiently diſcern the nature of the reſt.

CHAP.

CHAP. VIII.

Of ſecret writing by more letters than are requiſite to the intended meaning.

THE different kinds of ſecrecy by *equal letters* have been already handled. The next particular to be diſcuſſed, is concerning the ways of hiding any private ſence under *more letters* than are required to the words of it.

Of which kind there may be divers particulars, ſome of them in uſe amongſt the Ancients.

1. A writing may be ſo contrived, that only one letter in a verſe ſhall be ſignificant. As it was in thoſe remarkable *Acroſticks* made by a *Sybill* concerning our Saviour; where the letters at the beginning of each verſe, being put together, made up theſe words, Ἰησους χριστὸς θεὸῦ υἱὸς σωτὴρ. *Sybilla Erythræa.*

σωτηρ. *Jesus Christ the Son of God a Saviour.*

Beda lib. de Sybillis. The translation of these you may see in St. *Augustin de Civit. Dei lib.* 18. *cap.* 23. And the original are mentioned by *Ludovicus Vives*, in his notes upon that place.

According unto this doth *Plautus* contrive the names of his Comedies in the first letters of their Arguments. But this way is so ordinary in practise, that it needs not any further explication.

2. The inward sence hath likewise been conveyed by some single letters of several words in the same verse. As in that common Distich.

Vale. *Mitto tibi caput Veneris, ventremque Dianæ*
Latronisque caput, posteriora canE.

3. Sometimes one letter in each word was only significant. By which way of secret expression, the Holy Ghost (say the Rabbies) hath purposely

posely involved many sacred Mysteries in Scripture. When these significant letters were at the beginning of each word, the Cabalists, in their learning, called such an implicit writing ראשי תיבות *Capita dictionum.* When they were at the latter end, then was it stiled סופי תיבות *Fines dictionum.* Both being reckoned as species of that Cabalism which they called נוטריקון *Notaricon*, imposed by some later Rabbies from the Latin word *Notarius.*

Of the first sort, is that collection from those eminent words, *Gen.*49.10 יָבֹא שִׁלֹה וְלוֹ *Shilo shall come, and in him,* &c. where the capital letters make up the word יֵשׁוּ *Jesu.* The capital letters.

So Psal. 72. 17. יִנּוֹן שְׁמוֹ לְפָנֵי שֶׁמֶשׁ וְיִתְבָּרְכוּ בוֹ *His Name shall continue, and in him shall be blessed,* &c. which place does expressly treat concerning the Messias his name, and therefore seems unto the Jews, to be of strong consequence for the proof of Christianity. For so much is that

that Nation befooled in their abſurd dotage, upon theſe trivial literal collections, that a reaſon of this nature is of greater force unto them, than the moſt evident, ſolid demonſtration that may be urged. *Ludovicus Carret*, a famous Jew, Phyſician to the French King, being himſelf converted, and writing an Epiſtle to this purpoſe, unto thoſe of his own Nation, he does chiefly inſiſt upon the Arguments of this kind, as being in his opinion of greateſt efficacy to prove the truth of Chriſtian Religion.

Lib. Viſerum Divinorum.

The final letters.

Of the other ſort is that paſſage *Gen.* 1. 1. בראׁ אלה ם אׁת where the final letters make up the word אמת or *Truth*. Which kind of Cabaliſm is ſix times repeated in the Hiſtory of the Creation. As if *Moſes* by ſuch an artificial contrivance of the letters at the beginning of his writings, did purpoſely commend unto our belief his following Books. Unto this *David* is thought to allude

allude *Pſal.* 119. 160. *The beginning of thy word is* אמת *Truth.* Of this nature likewiſe is that obſervation from *Exod.* 3. 13. לי מה שמו מה. *When they ſhall ſay unto me, what is his name,* &c. Where the final letters anſwer יהוה *Jehovah.*

It were an eaſie matter for a man that had leaſure and patience for ſuch enquiries, to find out ſundry Arguments of this kind for any purpoſe.

4. There is another way of hiding any ſecret ſence under an ordinary Epiſtle, by having a * plate with certain holes in it, through which (being laid upon the paper) a man may write thoſe letters or words, that ſerve to expreſs the inward ſence; the other ſpaces being afterwards filled up with ſuch other words, as in their conjunction to theſe former, ſhall contain ſome common unſpected buſineſs. *Cardan de ſubtil. l.* 17. *Porta de ſurt. l.* 2. *c.* 18. * Such as Printers uſe when they are to inſert diverſe red letters amongſt the black.

5. There is alſo another intricate way to this purpoſe, much inſiſted on by *Tritemius, Porta,* and *Sylenus.* When each uſual word or form of

an Epiſtle, is varied to as many differences as there are letters, unto which they muſt all of them be ſeverally aſſigned. But theſe two latter inventions (though they be of great ſecrecy, yet) becauſe they require ſo much labour and trouble in the writer, I ſhall therefore paſs them over without any further enlargement.

CHAP.

CHAP. IX.

Of concealing any written ſence under barbarous words, and ſuch as ſhall not ſeem to be of any ſignification. How all the letters may be expreſſed by any five, three, or two of them. Of writing with a double Alphabet. How from theſe two laſt ways together, there may be contrived the beſt kind of ſecret writing.

ALL the ways of ſecrecy by *more letters*, already ſpecified, do make the writing appear under ſome other ſence, than what is intended, and ſo conſequently are more free from ſuſpicion: There are likewiſe ſome other inventions to expreſs any inward ſence by barbarous words, wherein only the firſt, and middle, and laſt letters ſhall be ſignificant. As in this Example,

Fildy, fagodur wyndeeldrare diſcogure rantibrad.

Which in its reſolution is no more than this.

Fly for we are diſcovered.

To this purpoſe likewiſe is that other way of expreſſing the whole Alphabet, by any five, or three, or two of the letters repeated. And though ſuch a writing, to ordinary appearance, will ſeem of no ſignification at all, and ſo may ſeem of leſs uſe: Yet becauſe a right apprehenſion of theſe ways, may conduce to the explication of ſome other particulars that follow, it will not be amiſs therefore to ſet them down more diſtinctly.

All the letters may be expreſſed by any five of them doubled. Suppoſe A B C D E.

A B C D E F G H I K L M N
aa ab ac ad ae ba bb bc bd be ca cb cc
O P Q R S T V W X Y Z. &
cd ce da db dc dd de ea eb ec ed. ee

According to which, theſe words, *I am betrayed*, may be thus deſcribed.

Bd aacb abaedddbaaecaead.

Three letters being tranſpoſed through three places, do give ſufficient difference, whereby to expreſs the whole Alphabet.

A B C D E F G H I
aaa aab aac baa bba bbb bbc caa cca
K L M N O P Q R S
ccb ccc aba abb abc aca acb acc bca
T V W X Y Z &.
bcb bcc bab cba cbb cbc bac

Haſten unto me.

Caa aaa bca bcb bba abb bcc abb bcb abc aba bba.

The whole Alphabet expreſſed by any two letters in five places.

Two letters of the Alphabet, being tranſpoſed through five places, will yield thirty two differences, and ſo will more than ſerve for the four and twenty letters; unto which they may be thus applied.

A.	*B.*	*C.*	*D.*	*E.*
aaaaa.	*aaaab.*	*aaaba.*	*aaabb.*	*aabaa.*
F.	*G.*	*H.*	*I.*	*K.*
aabab.	*aabba.*	*aabbb.*	*abaaa.*	*abaab.*
L.	*M.*	*N.*	*O.*	*P.*
ababa.	*abaab.*	*abbaa.*	*abbab.*	*abbba.*
Q.	*R.*	*S.*	*T.*	*V.*
abbbb.	*baaaa.*	*baaab.*	*baaba.*	*baabb.*
W.	*X.*	*Y.*	*Z.*	
babaa.	*babab.*	*babba.*	*babbb.*	

aababababababba aaaaababaaaaaaababba.

f l y a w a y

There

There is yet another way of ſecrecy by more letters than are naturally required to the inward ſence, if we write with a double Alphabet, wherein each letter ſhall in the faſhion of it, bear ſome ſuch ſmall diſtinction from the other of the ſame kind, as is uſual in common mixed writing. Writing by a double Alphabet.

For Example.

The firſt Alphabet.

Aa. Bb. Cc. Dd. Ee. Ff. Gg. Hh
Ii. Kk. Ll. Mm. Nn. Oo. Pp. Qq.
Rr. Ss. Tt. Uu. Ww. Xx. Yy. Zz.

the Second Alphabet.

Aa. Bb. Cc. Dd. Ee. Ff. Gg. Hh
Ii. Kk. Ll. Mm. Nn. Oo. Pp. Qq.
Rr. Ss. Tt. Uu. Ww. Xx. Yy. Zz.

1. Write an Epistle of an ordinary matter, or (if it be needful) contrary to what you intend. Let the body of it consist chiefly of the first Alphabet, only inserting (as you have occasion) such letters of the second,

ſecond, as may expreſs that inward meaning which you would reveal to a Confederate.

For example, from thoſe that are beſieged.

Wee proſper ſtillin our af-faires. and ſhall (without hauing any further helpe) endure the ſiege.

In which clauſe, the letters of the ſecond Alphabet are only ſignificant, expreſſing this inward ſence.

We

Weeperish with hunger helpe us.

But because the differences betwixt these two Alphabets may seem more easily discoverable, since they are both generally of the same kind; the letters of the second being all of them more round and full than the other: Therefore for their better secrecy in this particular, it were safer to mix them both by compact, that they might not, in themselves, be distinguishable.

The best way of secret writing. *Bacon. Augment. Scient. l. 6. c. 8.*

Now if this kind of writing, be mixed with the latter way of Secrecy, by two letters transposed through five places; we may then write *omnia per omnia*, which (as a learned man speaks) is the highest degree of this Cyphering.

For

For ſuppoſing each letter of the firſt Alphabet to be inſtead of the letter A, and thoſe of the other for B, we may eaſily inſcribe any ſecret ſence in any ordinary letter, only by a quintuple proportion of the writing infolding, to the writing infolded. As for example:

All

All things do happen according to our desires, the particulars you shall vnderstand when wee meete at the appointed time and place of which you must not faile by any means The successe of our affairs dos much depend vpon the meeting that wee have agreed vpon.

The

The involved meaning of which clauſe is this:

Fly, for we are diſcovered, I am forced to write this.

If you ſuppoſe each letter of the firſt Alphabet to be inſtead of A, and thoſe of the ſecond for B, then will the former clauſe be equivalent to this following deſcription.

Aabab	ababa	babba	aabab	abbab	baaaa	babaa
F	l	y	f	o	r	w
aabaa	aabaa	aaaaa	baaaa	aabaa	aaabb	
e	e	a	r	e	d	
abaaa	baaab	aaaba	abbab	baabb	aabaa	
i	ſ	c	o	v	e	
baaaa	aabaa	aaabb	abaaa	aaaaa	ababb	
r	e	d,	I	a	m	

aabab

aabab	abbab	baaaa	aaaba	aabaa	aaabb
f	o	r	c	e	d
baaba	abbab	babaa	baaaa	abaaa	baaba
t	o	w	r	i	t
aabaa	baaba	aabbb	abaaa	baaab.	
e	t	h	i	s.	

This way of ſecrecy may be ſerviceable for ſuch occaſions as theſe. Suppoſe a man were taken Captive, he may by this means diſcover to his Friends the ſecrets of the enemies Camp, under the outward form of a letter perſuading them to yield. Or ſuppoſe ſuch a man were forced by his own hand-writing to betray his Cauſe and Party, though the words of it in common appearance may expreſs what the enemy does deſire; yet the involved meaning, (which ſhall be legible only to his Confederates) may contain any thing

thing elſe, which he has a mind to diſcover to them: As in the former example.

But now if there be a threefold Alphabet, (as is eaſie to contrive) then the inward writing will bear unto the outward but a triple proportion, which will be much more convenient for inlarging of the private intimations.

And this way of writing is juſtly to be preferred before any of the other, as containing in it more eminently, all thoſe conditions that are deſirable in ſuch kind of inventions. As,

1. 'Tis not very laborious either to write or read.

2. 'Tis very difficult to be decyphered by the enemy.

3. 'Tis void of ſuſpicion.

But

But by the way, 'tis to be generally obſerved, that the mixture of divers kinds of ſecret writing together (as ſuppoſe this with the Key-character) will make the inward ſence to be much more intricate and perplexed.

CHAP.

CHAP. X.

Of writing any secret sense by fewer letters *than are required to the words of it. The use of this amongst the* Jews *and* Romans.

AS the sense may be obscured by writing it with more letters than are required to the words of it, so likewise by fewer. Abbreviations have been anciently used in all the learned Languages, especially in common forms, and Phrases of frequent use. Sometimes by contracting words, when some parts of them did stand for the whole. So in the Hebrew וכו׳ for וכולו *et totum illud*, which is all one with our *et cætera*, &c. כלו׳ for כלומר *Secundum dicere*, equivalent to our *viz.* or *v. g. verbi gratia.* So likewise in the Greek Χρ̄ς for Χριστος, and ἀνθ̄ for ἀνθρωπος. And in the Latin *Dn̄s* for *Dominus*; *ā̄a* for *Anima*, and the like. But these were rather for the speed of writing, than the Secrecy.

Dortorf. de Abbreviat. in initio.

Sometimes words were expreſſed only by their firſt letters. Thus did the Jews write all their Memorials, and common Forms, which are largely handled by *Buxtorfe*. Hence was it, that their Captain *Judas* had his name of *Maccaby*; for being to fight againſt *Antiochus*, he gave that ſaying for his watchword, *Exod.* 15. מי כמכה באלהים יהוה. *Who is like unto thee (O Lord) amongſt the God?* inſcribing in his enſigns the capital letters of it, מכבי *Macabi*. Whereupon after the Victory, the Soldiers ſtiled their Captain by that name.

Ibid.

'Tis obſerved by the *Rabbies*, that many grand Myſteries are this way implied in the words of Scripture. Thus, where it is ſaid, *Pſalm* 3. רבים *Many riſe up againſt me*, 'tis interpreted from the ſeveral letters, *Reſh* the *Romans*, *Beth* the *Babylonians*, *Jod* the *Jonians* or *Grecians*, *Mem* the *Medes*. Anſwerable unto which, that place in *Gen.* 49. 10. (ſpeaking of *Shilo*, unto whom יקהת the *gathering* of the people ſhall

ſhall be) is by another *Rabby* applied to the *Jews*, *Chriſtians*, *Heathens*, and *Turks*.

Upon theſe grounds likewiſe, is that Argument to prove the Trinity, from the firſt verſe of *Geneſis*. ברא אלהים. The word אלהים *Elohim*, being of the plural number, is thought to be that Divine name, which denoteth the Perſons of the Deity; which Perſons are more particularly intimated in the letters of the Verb ברא, that anſwers unto it: ב *Beth* being put for בן the Son, ר *Reſh* for רוח the Holy Ghoſt, א *Aleph* for אב the Father. And if you will believe the *Jews*, the Holy Spirit hath purpoſely involved in the words of Scripture, every ſecret that belongs to any Art or Science, under ſuch Cabaliſms as theſe. And if a man were but expert in unfolding of them, it were eaſie for him to get as much knowledge as *Adam* had in his Innocency, or Humane Nature is capable of.

These kind of mysterious Interpretations from particular letters, do seem to be somewhat favoured, by Gods addition of the letter ה unto the name of *Abram* and *Sara*, upon the renewing of his Covenant with them; which in all likelihood was not without some secret Mystery. That being the chief letter of the *Tetragrammaton*, might perhaps intimate that amongst their other Posterity, with the promise of which he had then Blessed them, they should also be the Parents of the *Messias*, who was *Jehovah*.

Gen. 17. 5. 15.

Vide Tertul. lib. de præscr. c. 50

This likewise others have confirmed from the example of Christ, who calls himself *Alpha* and *Omega*, *Rev.* 1. 8.

But though such conjectures may be allowable in some particulars, yet to make all Scriptures capable of the like secrets, does give such a latitude to mens roving and corrupt Fancies, as must needs occasion many wild and strange Absurdities. And therefore *Irenæus* does fitly observe, that from such

Iren. l. 1. c. 13.

ſuch idle collections as theſe, many Hereſies of the *Valentinians* and *Gnoſticks* had their firſt beginnings.

As this way of ſhort writing by the firſt letters, was of ancient uſe amongſt the *Jews*, ſo likewiſe amongſt the *Romans*, which appears from many of their Contractions yet remaining, as *S. P. D. Salutem plurimam dicit. S. Pq. R. Senatus populuſque Romanus. C. R. Civis Romanus. U.C. Urbs condita.* And the like.

Theſe ſingle letters were called *Syglæ, per Syncopen*, from the obſolete word *Sigillæ*, whence *Sigillatim*. They were uſually inſcribed in their Coins, Statues, Arms, Monuments, and publick Records. You may ſee them largely treated of by *Valerius Probus*, where he affirms the ſtudy of them to be very neceſſary for one that would underſtand the *Roman* Affairs. *His enim exprimebant nomina Curiarum, Tribuum, Comitiorum, Sacerdotiorum, Poteſtatum, Magiſtratuum, Præfecturarum, Sacrorum ludorum, Rerum urbanarum,*

Lib. de liter. antiquis. As it is ſet forth by *Jacobus Mazochius*

narum, rerum militarium, Collegiorum, Decuriarum, Faſtorum, Numerorum, Menſurarum, Juris civilis, & ſimilium.

They were firſt uſed by their Notaries, at Senates, and other publick Aſſemblies, and from thence retained in their Statutes and Civil Laws: Whence *Manilius* makes it the note of a good Lawyer.

—Qui legum tabulas & condita jura
Noverit, atque notis levibus pendentia verba.

Iſidor. Bibliand. de ratione com. ling.

Thus (ſaith *Iſidor*) (A) inverſed ⋎ did formerly ſtand for *pupilla*, and M inverſed ⋏ for *mulier*. By theſe letters *D. E. R. I. C. P.* is ſignified *De ea re ita cenſuerunt patres.*

Pet. Crinit. Honeſt. Diſc. l. 6. c. 8.

When the Judges were to inſcribe their ſeveral opinions on a little ſtone or *Teſſera*, to be caſt into the Urn; by the note *A*, they did abſolve, by * *K* condemn; by *N. L. Non liquet*, they did intimate that they could not tell what to make of the buſineſs, and

*From the Greek, καταδικάζειν

and did therefore ſuſpend their judgments.

But becauſe of thoſe many Ambiguities which this contracted way of writing was liable unto, and the great Inconveniencies that might happen thereupon in the miſinterpretation of Laws; therefore the Emperor *Juſtinian* did afterwards ſeverely forbid any further uſe of them, as it were, calling in all thoſe Law-books that were ſo written. *Neq; enim licentiam aperimus ex tali codice in judicium aliquid recitari.* *Lib. 1. Cod. Tit. 17. leg. 1. 2.*

The chief purpoſe of theſe ancient Abbreviations amongſt the *Romans*, was properly for their *ſpeed*. But it is eaſie to apprehend, how by compact, they may be contrived alſo for *Secrecy*.

CHAP. XI.

Of writing by invented Characters.

The distinction of these into such as signifie either { Letters. Words. Notions.

The general Rules of unfolding and obscuring any Letter-characters. How to express any sense, either by Points, or Lines, or Figures.

BEsides the ways of secret writing by the common letters, there may likewise be divers others by invented notes.

The difference of characters, whereby several Languages are expresst, is part of the second general curse in the confusion of Tongues; for as before there was but one way of speaking, so also but one way of writing. And as now, not only Nations, but particular Men, may discover their thoughts by any different articulate sounds, so likewise by any written signs.

These

Theſe invented Characters in the general, are diſtinguiſhable into ſuch as ſignifie either

1. *Letters.*
2. *Words.*
3. *Things, and Notions.*

First, Concerning thoſe that ſignifie Letters: To which kind, ſome learned men refer the Hebrew character that is now in uſe; affirming that *Ezra* first invented it, thereby the better to conceal the ſecrets of their Law, and that they might not have ſo much as their manner of writing common with the *Samaritans* and other Schiſmaticks. The Letter-character. *Hieronym. praf. ad lib. Regum. Joſeph Scal. notis ad Euſeb.*

'Twere but needleſs to ſet down any particulars of this kind, ſince it is ſo eaſie for any ordinary man to invent or vary them at pleaſure.

The rules that are uſually preſcribed for the unfolding of ſuch characters, are briefly theſe.

1 Endeavour to diſtinguiſh betwixt the Vowels and Conſonants. The Vowels may be known by their frequency,

quency, there being no word without ſome of them. If there be any ſingle character in Engliſh, it muſt be one of theſe three Vowels, *a. i. o.*

2. Search after the ſeveral powers of the letters: For the underſtanding of this, you muſt mark which of them are moſt common, and which more ſeldom uſed. (This the Printers in any Language can eaſily inform you of, who do accordingly provide their ſets of letters.) Which of them may be doubled, and which not, as *H. Q. X. Y.* And then for the number of Vowels or Conſonants in the beginning, middle, or end of words, a man muſt provide ſeveral Tables, whence he may readily gueſs at any word, from the number and nature of the letters that make it: As what words conſiſt only of Vowels; what have one Vowel and one Conſonant, whether the Vowel be firſt; as in theſe words, *Am. an. as. if. in. is. it. of. on. or. us.* Or laſt, as in theſe words, *Be. he. me. by. dy. ly. my. ty. do. to. ſo.* &c. And ſo for all

all other words according to their ſeveral quantities and natures.

Theſe Tables muſt be various according to the difference of Languages. There are divers the like rules to be obſerved, which are too tedious to recite; you may ſee them largely handled by *Baptiſta Porta*, and *Guſtavus Selenus*.

The common rules of unfolding being once known, a man may the better tell how to delude them; either by leaving out thoſe letters that are of leſs uſe, as *H. K. Q. X. Y.* and putting other characters inſtead of them, that ſhall ſignifie the Vowels: So that the number of this invented Alphabet will be perfect; and the Vowels, by reaſon of their double character, leſs diſtinguiſhable. Or a man may likewiſe delude the rules of diſcovery, by writing continuately, without any diſtinction betwixt the words, or with a falſe diſtinction, or by inſerting *nulls* and *non-ſignificants*, &c. In theſe caſes Orthography is not to be regarded.

Theſe

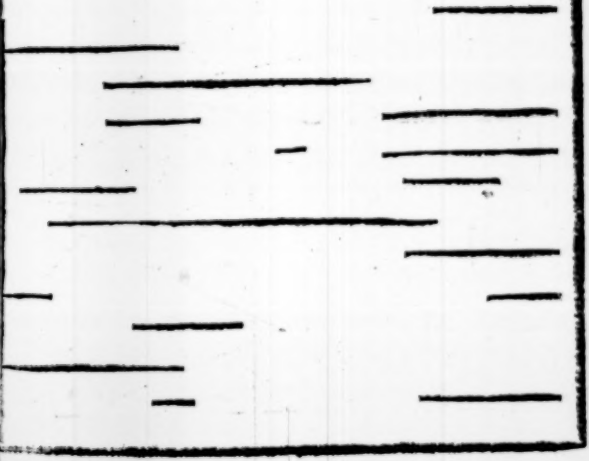
Theſe Characters are beſides liable to all thoſe other ways, whereby the common letters may be obſcured, whether by changing their *places*, or their *powers*.

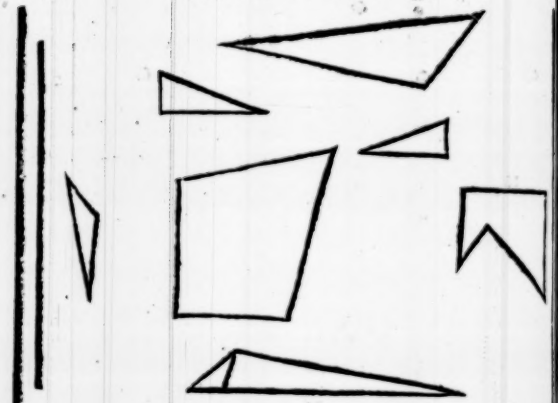
The particulars of this kind may be of ſuch great variety as cannot be diſtinctly recited. But it is the grand inconvenience of all theſe ways of ſecrecy by invented Characters, that they are not without ſuſpicion.

For the remedying of which, there have been ſome other inventions of writing by Points or Lines, or Figures, wherein a man would never miſtruſt any private meſſage; there being nothing to be diſcerned in theſe kinds of intimation, but only, either ſome confuſed, and caſual, or elſe ſome Mathematical Deſcriptions. As you may ſee in theſe following examples.

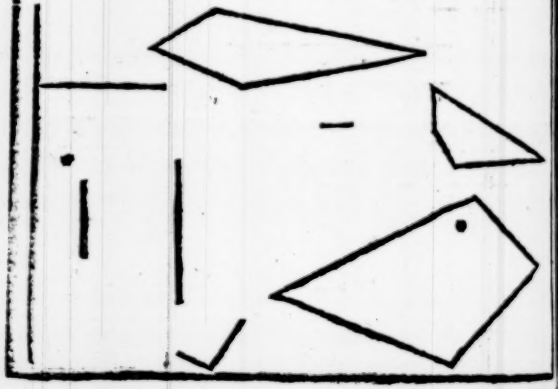
By Points alone.

By Lines alone.





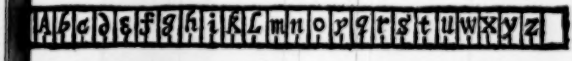
By Points, Lines and Figures mixed together.



Each of which Figures do expreſs theſe words:

There is no Safety but by Flight.

The direction both for the making and unfolding of theſe Deſcriptions, is this: Let the Alphabet be deſcribed at equal diſtances, upon ſome thin and narrow Plate, Paſtboard, or the like, thus:



Let the ſides of the Paper which you are to write upon, be ſecretly divided into equal parts, according to the breadth of the Plate; and then by application of this to the Epiſtle, it is eaſie to conceive how ſuch a writing may be both compoſed and reſolved. The Points, the ends of the Lines, and the Angles of the Figures, do each of them by their different ſituations, expreſs a ſeveral letter.

This

This may likewiſe be otherwiſe performed, if the Alphabet be contrived in a Triangular form, the middle part of it being cut out.

And ſo for a ſquare or round form.

The larger theſe directories are, by ſo much the leſs liable unto error will the writing be, that is deſcribed from them.

Joh. Walchius, fab. 9.

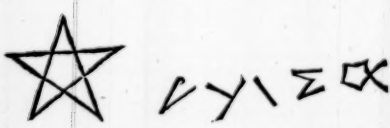
It is eaſie to apprehend, by theſe particulars, how a man may contrive any private ſaying in the form of a Landskip or other picture. There may be divers the like ways, whereby this invention of Secrecy may be further obſcured; but they are in themſelves ſo obvious, that they need not any larger explication.

CHAP.

CHAP. XII.

Of Characters that expreſs words. The firſt invention of theſe. Of thoſe that ſignifie things and notions, as Hieroglyphicks, Emblems.

THe next particular to be diſcourſed of, is concerning Characters that expreſs words. The writing by theſe is properly ſtiled *Stenography*, or Short-hand, *Scripturæ compendium, cum verba non perſcribimus ſed ſignamus*, ſaith *Lypſius*. The art of them is to contrive ſuch figures for ſeveral ſyllables as may eaſily be joyned together in one form, according as different words ſhall require. Thus 'tis ordinary to repreſent any proper name, by ſome ſuch unuſual character, as may contain in it all the letters of that name for which it is intended. Of this nature was that angular figure, ſo much uſed by the *Grecians* of old, which might be reſolved into the letters υγιεα. *Cent. 1. ad Belg. Epiſt. 27.* *Schikard. Happer. Diſp. 5.*



This mark was esteemed so sacred amongst the Ancients, that *Antiochus Soter*, a perpetual Conqueror, did always instamp it upon his Coin, and inscribe it on his Ensigns; unto which he did pretend to be admonished in a Dream, by an Apparition of *Alexander* the Great. And there are many superstitious women in these times, who believe this to be so lucky a character, that they always work it upon the swadling cloaths of their young children, thinking thereby to make them more healthful and prosperous in their lives. Unto this kind also, some refer the characters that are us'd in Magick, which are maintained to have, not only a secret signification, but likewise a natural efficacy.

This short-hand writing is now so ordinary in practice (it being usual for any common Mechanick both to write and

and invent it) that I ſhall not need to ſet down any particular example of it. In ancient times it was not ſo frequently uſed: But then there was a two-fold kind of it.

Private.
Publick.

And therefore *Pancerollus* reckons it amongſt theſe later inventions, *lib. de Repert. tit.* 14.

Theſe private characters were practiſed by the *Roman* Magiſtrates, and others of eminent favour amongſt them, who being often importuned to write in the commendation of thoſe perſons they knew not, were fain to agree upon ſome ſecret notes, whereby their *ſerious* Epiſtles might be diſtinguiſhed from thoſe of *form*. Whence the Proverb aroſe, *De meliori notâ commendare*.

Caſaubon. notis in Æne. Poliorcet. c. 31.

The other characters of publick and common uſe, are many of them explained by *Valerius Probus* in his Book *de literis antiquis*. And there is a whole Volume or Dictionary of them, ſet forth by *Janus Gruterus*. From the practice of theſe came the word *Notarius*, as * St. *Auſtin* obſerves.

De notis Tyronis & Senec.

* *De doct. Chriſt. l.* 2. *c.* 26.

The first invention of them is commonly ascribed to *Tyro*, who was a servant unto *Cicero*. So * *Eusebius*, and † *Polyd. Virgil.* But *Trithemius* affirms, That *Cicero* himself writ a Treatise on this subject, which was afterwards augmented by St. *Cyprian*. And that he had found in an old Library the copy of a Psalter written in these characters, inscribed by some ignorant man, with this Title: *Psalterium in linguâ Armenicâ*.

* *In Chron.*
† *De invent. rerum l. 2. c. 8.*
De Polygr.

That *Cicero* was not unacquainted with these notes, may be evident from that passage to *Atticus*: *Quod ad te de legatis scripsi, parum intellexit, credo quia δια σημειων scripseram.*

Lib. 13. ad Attic. ep. 32

Pet. Diaconus attributes the first invention of these to the old Poet *Ennius*; whose beginnings in this kind, did afterwards receive successive addition from the works of *Tyro*, *Philargirus*, *Aquila*, and *Seneca* the Father, by whom they were increased to the number of 5000.

Prolog. not. Conrad Imp. Isidor. Orig. l. 1. c. 21.

But

But *Hermannus Hugo*, a late Jeſuit, will have this ſhort-hand writing to be of far more ancient uſe; affirming that *David* alludes to the practiſe of it in that phraſe, *Pſal.* 45. 1. *The pen of a ready writer.* And that the writing upon the wall in *Daniel* 5. 25. which ſo puzled the *Chaldean* Wizards, was deſcribed in ſuch kind of Characters. But whether this were ſo or not, is not much material: It is ſufficiently pertinent to the preſent enquiry, that the uſe of theſe word-characters may well enough conduce to the ſecrecy of any written meſſage. *De Orig. ſcribendi, c.* 18. *juxta finem.*

The third and laſt ſort of ſigns that have been anciently uſed for the expreſſion of *things* and *notions*, are either *Hieroglyphicks* or *Emblems.*

1. Concerning *Hieroglyphicks.* The word ſignifies *Sacred Sculptures*, which were engraven upon Pillars, Obelisks, Pyramids, and other Monuments before the invention of letters. Thus the *Egyptians* were wont to expreſs their minds, by the pictures of ſuch Crea- Of Hieroglyphicks. *Tacit. Annal. l.* 11.

Creatures as did bear in them ſome natural reſemblance to the thing intended. By the ſhape of a Bee they repreſented a King, intimating that he ſhould be endowed with Induſtry, Hony, and a Sting. By a Serpent with his tail in his mouth, the year, which returns into it ſelf. And (which was a kind of prophetical Hieroglyphick) by the ſign of a Croſs they did anciently denote *ſpem venturæ ſalutis*, or *vitam æternam*, as *Pet. Crinitus* relates out of *Ruffinus*. * *Philo* reckons up the knowledge of theſe, amongſt thoſe other abſtruſe *Egyptian* Arts, wherein *Moſes* is ſaid to be ſo expert. And *Clemens* relates of *Pythagoras*, how he was content to be circumciſed, that ſo he might be admitted to the underſtanding of thoſe many and great Myſteries, which were this way delivered by the ancient Prieſts, who did conceal all their Learning under ſuch kind of Magical expreſſions as the Poet ſtiles them.

Polyd. Vir. de Invent. l. 3. c. 11.

De honeſtâ diſciplinâ l. 7. c. 2.

* *Lib. de vita Moſis.*

Lib. 1 Stromat.

Lucan. l. 3.

Nondum

Nondum flumineas Memphis *contexere byblos*
Noverat, & ſaxis tantùm volucreſq; feræque,
Sculptaq; ſervabant magicas animalia linguas.

Plutarch ſpeaks of a Temple in *Egypt* dedicated to *Minerva*, in the front of which there was placed the Image of an *Infant*, an *old man*, a *Hawk*, by which they did repreſent God; a *Fiſh*, the expreſſion of Hatred; and a *Sea-horſe*, the common Hieroglyphick of Impudence. The conſtruction of all being this, *O ye that are born to die, know that God hateth Impudence.* *Libro de Iſid. & Oſiride.*

Of this nature were thoſe preſents ſent unto *Darius*, when he was almoſt wearied in his War againſt the *Scythians*, which were a Bird, a Mouſe, a Frog, and certain Arrows; intimating that unleſs the *Perſians* could fly as *Birds*, or hide themſelves under water as *Frogs*, or inhabit the Caverns of the Earth as *Mice*, they ſhould not eſcape the *Scythian Arrows*. Of this kind likewiſe were ſome Military ſigns amongſt the *Romans*. When any thing was to be carried with ſilence and ſe- *Herodot. Melpom. l. 4. c. 130. Clem. Alex. Strom. 5.*

crecy, they lifted up the repreſentation of a *Minotaur*, thereby teaching the Captains, that their counſels and contrivances muſt be as inextricable as a Labyrinth, which is feigned to be the habitation of that Monſter.

Pierius Hieroglyph. l. 3. c. 38.

Emblems from the *Greek* word ἐμβάλλειν, *interſerere, injicere.*

2. Like unto theſe Hieroglyphicks, are the expreſſions by Emblems. They were uſually inſerted as ornaments, upon veſſels of gold, and other matters of ſtate or pleaſure. Of this nature are the ſtamps of many ancient Medals, the impreſſes of Arms, the Frontiſpieces of Books, *&c.*

The kinds of them are chiefly twofold.

1. *Natural*, Which are grounded upon ſome reſemblance in the property and eſſence of the things themſelves. So a Dolphin, which is a ſwift Creature, being deſcribed upon an Anchor, which ſerves for the ſtay and reſt of a Ship, ſignifies *Feſtina-lentè*, Deliberation in counſel, and Diſpatch in execution. A young Stork carrying the oldone, Filial gratitude.

2. *Hiſto-*

2. *Hiſtorical*, Thoſe that refer to ſome common relation. So the picture of *Prometheus* gnawed by a Vulture, ſignifies the deſert of over-much curioſity. *Phaeton*, the folly of raſhneſs. *Narciſſus*, the puniſhment of ſelf-love.

It was formerly eſteemed a great ſign of wit and invention, handſomely to convey any noted ſaying, under ſuch kind of expreſſions.

CHAP. XIII.

Concerning an univerſal Character, that may be legible to all Nations and Languages. The benefit and poſſibility of this.

AFter the Fall of *Adam*, there were two general Curſes inflicted on Mankind: The one upon their *Labours*, the other upon their *Language*.

Againſt the firſt of theſe we do naturally endeavour to provide, by all thoſe common Arts and Profeſſions, about which the World is buſied; ſeeking thereby to abate the ſweat of their Brows in the earning of their Bread.

Againſt

Againſt the other, the beſt help that we can yet boaſt of, is the Latin tongue, and the other learned Languages, which by reaſon of their generality, do ſomewhat reſtore us from the firſt confuſion. But now if there were ſuch an univerſal character to expreſs things and notions, as might be legible to all People and Countries, ſo that men of ſeveral Nations might with the ſame eaſe both write and read it, this invention would be a far greater advantage in this particular, and mightily conduce to the ſpreading and promoting of all Arts and Sciences: Becauſe that great part of our time which is now required to the Learning of words, might then be imployed in the ſtudy of things. Nay, the confuſion at *Babel* might this way have been remedied, if every one could have expreſſed his own meaning by the ſame kind of Character. But then perhaps the art of Letters was not invented.

That ſuch a manner of writing is already uſed in ſome parts of the World,

World, the Kingdoms of the high *Levant*, may evidently appear from divers credible Relations. *Trigaultius* affirms, that though those of *China* and *Japan* do as much differ in their Language, as the *Hebrew* and the *Dutch*, yet either of them can, by this help of a common character, as well understand the books and letters of the others, as if they were only their own.

Hist. Sinens. l. 1. c. 5

Bacon Augment. Scient. l. 6. c. 13

Voss. Gr. l. 1. c. 41.

Herm. Hugo de Orig. scrib. c. 4.

And for some particulars, this general kind of writing is already attained amongst us also.

1. Many Nations do agree in the characters of the common numbers, describing them either the *Roman* way by letters, as I. II. V. X. C. D. M. or else the *Barbarian* way by figures, as 1. 2. 3. 10. *&c.* So likewise for that which we call Philosophical number, which is any such measure whereby we judge the differences betwixt several substances, whether in weight, or length, or capacity; each of these are expresst in several Languages by the same character. Thus ℈ signifies a scruple,

Scruple, ʒ a Drachm, and ſo of the reſt.

2. The Aſtronomers of ſeveral Countries do expreſs both the heavenly Signs, and Planets, and Aſpects by the ſame kind of notes: As, ♈,♉,♊,♋, &c. ♄,♃,♂,♀, &c. ☌,✶,△,□,☍. Which characters (as it is thought) were firſt invented by the ancient Aſtrologers for the ſecrecy of them, the better to conceal their ſacred and myſterious profeſſion from vulgar capacity.

3. The Chymical Treatiſes that are written in different languages, do all of them agree in the ſame form of writing their Minerals. Thoſe that are attributed to any of the Planets, are decyphered by the character of the Planet to which they belong. The reſt by other particular ſigns, as △ for Salt Ammoniack, ♁ for Arſnick, *&c.*

4. Muſical notes in moſt Countries are the ſame: Nor is there any reaſon why there may not be ſuch a general kind of writing invented for the expreſſion

preſſion of every thing elſe as well as theſe particulars.

In the contrivance of this there muſt be as many ſeveral characters as there are primitive words. To which purpoſe the *Hebrew* is the beſt pattern, becauſe that Language conſiſts of feweſt Radicals.

Each of theſe primitives muſt have ſome particular marks to diſtinguiſh the Caſes, Conjugations, or other neceſſary variations of thoſe Derivatives that depend upon it.

In the reading of ſuch a writing, though men of ſeveral Countries ſhould each of them differ in their voices, and pronounce ſeveral words, yet the ſenſe would be ſtill the ſame. As it is in the picture of a Man, a Horſe, or Tree, which to all Nations do expreſs the ſame conceit, though each of theſe Creatures be ſtiled by ſeveral names, according to the difference of Languages.

Suppoſe that Aſtronomical ſign ♉ were to be pronounced, a Jew would call

call it שור; a Grecian, Ταῦρον; an Italian, *Toro*; a Frenchman, *Taureau*; a German, *Stier*; an Engliſhman, a *Bull*.

So likewiſe for that character, which in *Tiro*'s notes ſignifies the World, a Jew would read it תבל; a Grecian, Κόσμος; an Italian, *il monde*; a Frenchman, *le monde*; a German, *Belt*. Though ſeveral Nations may differ in the *expreſſion* of things, yet they all agree in the ſame conceit of them.

The learning of this character will not be more difficult than the learning of any one Language, becauſe there needs not be more ſigns for the expreſſion of things, than there is now for the expreſſion of *words*. Amongſt thoſe in *China* and *Japan*, there is ſaid to be about ſeven or eight thouſand.

The perfecting of ſuch an invention were the only way to unite the ſeventy two Languages of the firſt confuſion; and therefore may very well deſerve their endeavours, who have both abilities and leiſure for ſuch kind of Enquiries.

CHAP.

CHAP. XIV.

Concerning the third way of ſecret diſcourſing by ſigns and geſtures, which may ſignifie either

ex { congruo. / placito.

THe third way of diſcourſing was by ſigns and geſtures, which (as they are ſerviceable to this purpoſe) may be diſtinguiſhed into ſuch as are ſignificant, either

1. *Ex congruo.*
2. Or *ex placito.*

1. *Ex congruo*, when there is ſome natural reſemblance and affinity betwixt the action done, and the thing to be expreſt. Of which kind are all thoſe outward geſtures, whereby not only dumb Creatures, but men alſo do expreſs their inward paſſions, whether of Joy, Anger, Fear, *&c.* For,

Sæpe tacens vocem verbaq; vultus habet.

And

And the Wiſe man notes it of the Scorner, That *he winketh with his eyes, he ſpeaketh with his feet, he teacheth with his fingers.* Prov 6.13

Of this kind likewiſe are many religious actions, and circumſtances of Divine worſhip, not only amongſt the ancient Heathen, but ſome that were particularly enjoyned the Prieſts and Levites of the old Law, and ſome too that are now in uſe in theſe times of the Goſpel. For by ſuch bodily geſtures and ſigns, we may as well ſpeak unto God as unto men.

To this kind alſo are reducible thoſe actions of *form*, that are required as neceſſary circumſtances in many civil affairs and publick ſolemnities, which are uſually ſuch, as in themſelves are apt to ſignifie the thing for which they are meant.

But now, ſometimes the intended meaning of theſe geſtures is concealed under a ſecret ſimilitude. As it was in that act of *Thraſybulus*, who being conſulted with, how to maintain a tyranny

that

that was newly uſurped: He bid the Meſſenger attend him in the Field; where with his Wand he whipt off thoſe higher Ears of Corn that did over-top the reſt; intimating, that it conſiſted in cutting off the Peers and Nobility, who were likely to be moſt impatient of Subjection. This I may call a *Parabolical* way of ſpeaking by Geſtures.

2. *Ex placito*, when theſe ſigns have their ſignification from uſe and mutual compact; which kind of ſpeaking, as it refers to laſcivious intimations, is largely handled by *Ovid. de Arte Amandi.*

Verba ſupercilliis ſine voce loquentia dicam,
Verba leges digitis, &c.

By the help of this it is common for men of ſeveral Nations, who underſtand not one anothers Languages, to entertain a mutual Commerce and Traffick. And 'tis a ſtrange thing to behold, what Dialogues of Geſtures

there will paſs betwixt ſuch as are born both Deaf and Dumb; who are able by this means alone, to anſwer and reply unto one another as directly as if they had the benefit of Speech. 'Tis a great part of the State and Majeſty belonging to the Turkiſh Emperor, that he is attended by Mutes, with whom he may diſcourſe concerning any private buſineſs, which he would not have others to underſtand.

It were a miſerable thing for a rational Soul to be impriſoned in ſuch a Body, as had no way at all to expreſs its Cogitations; which would be ſo in all that are born Deaf, if that which nature denied them, were not in this reſpect ſupplied by a ſecond nature, cuſtom and uſe.

But (by the way) 'tis very obſervable which * *Valleſius* relates of *Pet. Pontius* a Friend of us, who by an unheard-of Art taught the Deaf to ſpeak. *Docens primum ſcribere, res ipſas digito indicando, quæ characteribus illis ſignificarentur;*

* *Sacra Philoſ. c.* 3.

carentur; deinde ad motus linguæ, qui characteribus reſponderent provocando. Firſt learning them to write the name of any thing he ſhould point to; and afterwards provoking them to ſuch motions of the Tongue as might anſwer the ſeveral words. 'Tis probable that this invention well followed, might be of ſingular uſe for thoſe that ſtand in need of ſuch helps. Though certainly that was far beyond it, (if true) which is related of an ancient Doctor, *Gabriel Neale*, that he could underſtand any word by the meer motion of the Lips, without any utterance.

The particular ways of diſcourſing by Geſtures, are not to be numbred, as being almoſt of infinite variety, according as the ſeveral Fancies of men ſhall impoſe ſignifications upon all ſuch ſigns or actions as are capable of ſufficient difference.

But ſome there are of more eſpecial note for their uſe and antiquity. Such is that upon the joynts and fingers of

the hand, commonly ſtiled *Arthrologia*, or *Dactylologia*, largely treated of by the venerable * *Bede*, † *Pierius*, and others. In whom you may ſee, how the Ancients were wont to expreſs any number, by the ſeveral poſtures of the hands and fingers: The numbers under a hundred, were denoted by the left hand, and thoſe above, by the right hand. Hence *Juvenal*, commending *Pylias* for his old Age, ſays, That he reckoned his years upon his right hand.

* *Lib. de loquelâ per geſtum digitorum ſive de indigitatione.*
† *Hieroglyphic. l.* 37. *c.* 1. &c. *Cælius Antiq. lect. l.* 23. *c.* 12.
Satyr. 10.

Fœlix nimirum qui tot per ſæcula vitam
Diſtulit, atque ſuos jam dextra computat annos.

There are divers paſſages in the ancient Authors, both Sacred and Profane, which do evidently allude to this kind of reckoning.

Hence it is eaſie to conceive, how the letters, as well as the numbers, may be thus applied to the ſeveral parts of the hand, ſo that a man might with divers touches, make up any ſenſe, that he

he hath occaſion to diſcover unto a Confederate.

This may be performed, either as the numbers are ſet down in the Authors before cited, or elſe by any other way of compact that may be agreed upon.

As for example: Let the tops of the fingers ſignifie the five vowels; the middle parts, the five firſt conſonants; the bottoms of them, the five next conſonants; the ſpaces betwixt the fingers, the four next. One finger laid on the ſide of the hand may ſignifie T, two fingers V the conſonant, three W, the little finger croſſed X, the wriſt Y, the middle of the hand Z.

But becauſe ſuch various geſticulations as are required to this, will not be without ſuſpicion, therefore it were a better way, to impoſe ſignifications upon ſuch actions as are of more common unſuſpected uſe; as ſcratching of the head, rubbing the ſeveral parts of the face, winking of the eyes, twiſting of the beard, &c. Any of which, or

all of them together, may be as well contrived to ſerve for this purpoſe, and with much more ſecrecy.

In which Art, if our gaming Cheats, and Popiſh Miracle-impoſtors, were but well verſed, it might much advantage them, in their couſening trade of Life.

CHAP. XV.

Concerning the ſwiftneſs *of informations, either by* qualities, *as the impreſſion of imagination, and the ſenſitive ſpecies; or by ſpiritual* Subſtances, *as Angels.*

HAving already treated concerning the ſeveral ways of *ſecrecy* in diſcourſing, I ſhall in the next place enquire, How a man may with the greateſt *ſwiftneſs* and *ſpeed*, diſcover his intentions to one that is far diſtant from him.

There is nothing (we ſay) ſo ſwift as thought, and yet the impreſſion of theſe

theſe in another, might be as quick almoſt as the firſt act, if there were but ſuch a great power in imagination, as ſome later * Philoſophers have attributed to it.

* *Marſil. Ficin. Theolog. Platon. l. 3. c. 1. Pomponatius de Incantat. Paracelſus.*

Next to the acts of thought, the ſpecies of ſight do ſeem to be of the quickeſt motion. We ſee the light of the Eaſt will in a moment fill the Hemiſphere, and the eye does preſently diſcern an object that is very remote. How we may by this means communicate our thoughts at great diſtances, I ſhall diſcourſe afterwards.

The Subſtances that are moſt conſiderable for the ſwiftneſs of their motion, are

Either { *Spiritual.* / *Corporeal.*

Amongſt all created Subſtances, there are not any of ſo ſwift a motion as Angels or Spirits. Becauſe there is not either within their natures, any ſuch Indiſpoſition and Reluctancy, or without them in the medium, any ſuch impediment as may in the leaſt man- Spirits.

ner retard their courſes. And therefore have the ancient Philoſophers imployed theſe as the cauſes of that mad celerity of the celeſtial Orbs; though according to their ſuppoſitions I think it would be a hard match, if there were a Race to be run betwixt the *Primum mobile* and an Angel. It being granted that neither of them could move in an inſtant, it would be but an even lay, which ſhould prove the ſwifter.

From the fitneſs of Spirits in this regard, to convey any meſſage, are they in the learned Languages called Meſſengers.

מלאך ἄγγελος *Angelus.*

Now if a man had but ſuch familiarity with one of theſe, as *Socrates* is ſaid to have with his Tutelary *Genius*: If we could ſend but one of them upon any errand, there would be no quicker way than this for the diſpatch of buſineſs at all diſtances.

Plutarch. Maximus Tyrius. Diſſertat. 26, 27.

That they have been often thus imployed, is affirmed by divers relations. *Vatinius* being at *Rome*, was informed by

by an Apparition, of that Victory which *Paulus* their General had obtained over King *Perſes* in *Macedon*, the very ſame day wherein the Battel was fought; which was a long time before any other Meſſenger could arrive with the news. *Lactant. Inſt. l. 2. cp. 8. Val. Max. l. 1. c. 8. Florus, l. 2. c. 12.*

And it is ſtoried of many others, that whilſt they have reſided in remote Countries, they have known the death of their Friends, even in the very hour of their departure; either by Bleeding, or by Dreams, or ſome ſuch way of intimation. Which, though it be commonly attributed to the operation of Sympathy; yet it is more probably to be aſcribed unto the Spirit or Genius. There being a more eſpecial acquaintance and commerce betwixt the Tutelary Angels of particular Friends, they are ſometimes by them informed (though at great diſtances) of ſuch remarkable accidents as befall one another.

But this way there is little hopes to advantage our enquiry, becauſe it is not

not so easie to imploy a good Angel, nor safe dealing with a bad one.

The Abbot *Trithemius*, in his Books concerning the several ways of secret and speedy discoursing, does pretend to handle the forms of conjuration, calling each kind of Character by the name of Spirits, thereby to deter the vulgar from searching into his Works. But under this pretence, he is thought also to deliver some Diabolical Magick. Especially in one place where he speaks of the three Saturnine Angels, and certain Images, by which, in the space of twenty four hours, a man may be informed of news from any part of the World. And this was the main reason, why by *Junius* his advice, *Frederick* the second, Prince Palatine, did cause the original Manuscript of that work to be burned. Which action is so much (though it should seem unjustly) blamed by *Selenus*.

Vossius Gram. l. 1. c 41.

Polygraph. l. 3. c. 16.

Cryptogra. l. 3. c. 15.

CHAP.

CHAP. XVI.

Concerning the ſwiftneſs of conveyance by Bodies, *whether* Inanimate, *as Arrows, Bullets; or* Animate, *as Men, Beaſts, Birds.*

THe *Bodies* that are moſt eminent for their ſwiftneſs, may be diſtinguiſhed into ſuch as are

either { *Inanimate.* / *Animate.*

Theſe inanimate Bodies, as Arrows, Bullets, *&c.* have only a violent motion, which cannot therefore be continued to ſo great a diſtance as ſome occaſions would require: But for ſo much ſpace as they do move, they are far ſwifter than the natural motion of any animated body. How theſe have been contrived to the ſpeedy conveyance of ſecret meſſages, hath been formerly Inanimate Bodies.

merly discourſed, in the fourth Chapter, which I now forbear to repeat.

Thoſe living bodies that are moſt obſervable for their ſpeed and celerity in Meſſages, are either Men, Beaſts, Birds: Though I doubt not, but that Fiſhes alſo may be ſerviceable for this purpoſe, eſpecially the Dolphin, which is reported to be of the greateſt ſwiftneſs, and moſt eaſily cicurated or made tame.

Men. Amongſt the ancient Footmen, there are ſome upon record for their incredible ſwiftneſs. *Ladas* is reported to be ſo quick in his running, *Ut arenis pendentibus & cavo pulvere, nulla indicia relinqueret veſtigiorum*, that he left no impreſſion of his footſteps on the hollow ſands. And it is related of a Boy amongſt the *Romans*, being but eight years old, that did run five and forty mile in an afternoon. *Aniſtius* and *Philonides*, two Footmen unto *Alexander* the Great, are ſaid to have run 1200 *ſtadia* in a day. Which relations will ſeem leſs incredible, if we conſider the

Solinus. Polybiſt. c. 6.

Plin.

the ancient Exerciſes and Games of this kind, together with the publick fame and rewards for thoſe that were moſt eminent.

Amongſt the variety of Beaſts, there are ſome of more eſpecial note for their ſtrength and ſwiftneſs. *Scaliger* mentions a ſtory, (though he diſtruſts the truth of it) of a certain Beaſt called *Ellend*, two of which being joyned in a little Cart, are ſaid to paſs three hundred leagues a day upon the Ice. Swiftneſs of Beaſts. *Exer.* 205.

In former Ages, and in other Countries, the Dromedary, and Camel, and Mule, were of more common uſe: But in theſe times and places the Horſe (for the moſt part) ſerves inſtead of them all; by the help of which, we have our ſwifteſt means of ordinary conveyance. The Cuſtom of riding Poſt, by renewing both Horſe and Man at ſet Stages, is of ancient Invention. *Herodotus* relates it to be uſed by *Xerxes* in the *Grecian* War, and that it was by the *Perſians* called Ἀγγαρήιον. The particulars that concern theſe kind of *Lib.* 8. 98.

Con-

Conveyances amongſt the Ancients, are largely handled by *Hermannus Higo lib. de origine ſcribendi, cap.* 14.

Nat Hiſt l. 8. *c.* 42. *Pliny* tells us of certain Mares in *Luſitania*, which do conceive merely by the Weſt Wind, that alone (without the copulation of any Male) ſerving to actuate their heat, and to generate their young. Which are likewiſe mentioned by *Virgil*, *Georg.* 3.

Exceptantq; auras leves, & ſæpe ſine ullis
Conjugiis, vento gravidæ, &c.

Methinks theſe children of the wind, ſhould for their fleetneſs make excellent Poſt-horſes, and much conduce to the ſpeedy conveyance of any Meſſage.

The *Paracelſians* talk of natural means to extract the metal and ſpirit out of one Horſe, and infuſe it into another, of enabling them to carry a man ſafely and ſwiftly, through enemies, precipices, or other dangerous places. And ſuch Horſes (ſay they) were uſed by

by the Wiſe men of the Eaſt at our Saviour's Nativity; for they had not otherwiſe been able to have kept pace with a Star, or to have paſſed ſo great a Journy as it was to *Jeruſalem*, which is thought to be five or ſix hundred miles at the leaſt, from the places of their habitation If this conceit were feaſible, it would much promote the ſpeed of conveyances; but I think it may juſtly be referred amongſt the other Dreams of the Melancholick Chymicks.

Amongſt all animate bodies, there is not any that have naturally ſo ſwift a motion as Birds, which if a man could well imploy in the diſpatch of any errand, there would be but little fear that ſuch Meſſengers ſhould be either intercepted or corrupted. The ſwiftneſs of Birds.

That this hath been attempted, and effected by many of the Ancients, is affirmed by divers relations. *Pliny* tells us of *Volaterranus*, that he diſcovered a Conqueſt he had gotten, unto the City of *Rome*, by ſending out Swallows, which *Nat. Hiſt. l.* 10. *c.*24.

which ſhould fly thither, being anointed over with the colour of Victory. And of another, who ſending one of theſe Birds into a beſieged City, (whence ſhe was before taken from her young ones) and tying a ſtring unto her with certain knots upon it, did thereby ſhew, after what number of days their Aids would come, at which time they ſhould make an Iruption upon the enemy.

Cap 37. And elſewhere in the ſame Book, he relates, How *Hircius* the Conſul, and *Brutus*, who was beſieged in *Mutina*, did this way maintain mutual intelligence, by tying their Letters unto ſuch Pigeons, as were taught before-hand to fly from the Tents to the City, and from thence to the Tents again.

Hiſtor. Animalium, l. 6. c. 7. How *Thauroſthenes* did by this means ſend the news of his Victory at *Olympia*, to his Father at *Ægina*, is related by *Ælian*.

Anacreon has an Ode upon ſuch a Pigeon, which he himſelf had often uſed

uſed as a Meſſenger, wherein the Bird is feigned to ſay,

Ἐγὼ δ' Ἀνακρέοντι
Διακονῶ τοσαῦτα
Καὶ νῦν ὁρᾷς ἐκεῖνος
Ἐπιστολὰς κομίζω.

Unto this invention alſo *Juvenal* is thought to allude, where he ſays, *Satyr. 4. juxta finem.*

—tanquam è diverſis partibus orbis,
Anxia præcipiti veniſſet epiſtola pennâ.

Lypſius relates out of *Varro*, that it was uſual for the *Roman* Magiſtrates, when they went unto the Theatre, or other ſuch publick meetings, whence they could not return at pleaſure, to carry ſuch a Pigeon with them, that if any unexpected buſineſs ſhould happen, they might thereby give warning to their Friends or Families at home. *Saturn. Serm. l. 2. c. 6.*

By which relations you may ſee, how commonly this invention was practiſed amongſt the Ancients. Nor hath it been leſs uſed in theſe later

times, especially in those Countries, where by reason of continual Wars and Dissentions, there have been more particular and urgent necessity for such kind of conveyances. *Nunc vulgatissima res est, columbas habere, ad ejusmodi jussa paratus*, saith *Casaubon.* *Harum opere, nostrates hoc bello civili, frequenter adjuti sunt*, saith *Godesc. Stewechius.*

Not. in Æneæ. Poliorcet. c. 31.

Comment. in Veget. l. 3. c. 5.

There are divers other stories to this purpose, but by these you may sufficiently discern the common practices of this kind. As it is usual to bring up Birds of prey, as Hawks, Cormorants, *&c.* to an obedience of their keepers; so likewise have some attempted it in these other Birds, teaching them the art of carrying messages. There is a smaller sort of Pigeon, of a light body and swift flight, which is usually made choice of for such particulars; and therefore the kind of them is commonly called by the name of Carriers.

See *Nunt. Inanimat.* concerning *Amiroldus.*

Porta de Furt. lit. l. 2. c. 21. concerning Marches.

Herm. Hugo. de Orig. scribendi, c. 15.

Thuanus Hist. l. 17.

CHAP.

CHAP. XVII.

Of ſecret and ſwift informations by the ſpecies of ſound.

HAving in the former Chapters treated ſeverally concerning the divers ways of ſecrecy and ſwiftneſs in Diſcourſe; it remains that I now enquire (according to the method propoſed) how both theſe may be joyned together in the conveyance of any meſſage. The reſolution of which, ſo far as it concerns the particulars already ſpecified, were but needleſs to repeat.

That which does more immediately belong to the preſent *Quære*, and was the main occaſion of this diſcourſe, does refer to other ways of intimation, beſides theſe in ordinary uſe, of ſpeaking, or writing, or geſtures. For in the general we muſt note, That *Whatever is capable of a competent difference, perceptible to any ſenſe, may be a*

ſufficient means, whereby to expreſs the Cogitations. It is more convenient indeed, that theſe differences ſhould be of as great variety as the letters of the Alphabet; but it is ſufficient if they be but twofold, becauſe two alone may, with ſomewhat more labour and time, be well enough contrived to expreſs all the reſt. Thus any two letters or numbers, ſuppoſe A. B. being tranſpoſed through five places, will yield thirty two differences, and ſo conſequently will ſuperabundantly ſerve for the four and twenty Letters, as was before more largely explained in the ninth Chapter.

Now the ſenſitive ſpecies, whereby ſuch informations muſt be conveyed, are either the ſpecies of *ſound*, or the ſpecies of *ſight*. The Ear and the Eye being the only ſences that are of quick perception, when their objects are remote.

De re milit. l. 3 c. 5. *Vegetius* diſtinguiſheth all ſignificatory ſigns into theſe three ſorts.

1. *Vocalia.*

1. *Vocalia.* By articulate ſounds.
2. *Semivocalia.* By inarticulate ſounds.
3. *Muta.* By the ſpecies of ſight.

The two laſt of theſe are chiefly pertinent to the preſent enquiry. Concerning which, in the general it may be concluded, that any ſound, whether of Trumpets, Bells, Cannons, Drums, *&c.* or any object of ſight, whether flame, ſmoak, *&c.* which is capable of a double difference, may be a ſufficient means whereby to communicate the thoughts.

The particular application of theſe, to ſome experiments, I ſhall treat more diſtinctly in the remainder of this diſcourſe.

Secret and ſpeedy information by the ſpecies of ſound.

Firſt, Concerning the ſecrecy and ſwiftneſs of any meſſage by the ſpecies of ſound. Though theſe audible ſpecies be much ſlower than thoſe of ſight, yet are they far ſwifter than the natural motion of any corporeal meſſenger. The chief uſe of theſe, is for ſuch as are within ſome competent

nearneſs, as perhaps a mile off. But they may alſo by frequent multiplications be continued to a far greater diſtance.

Præm. in lib. Plutar. de defect. oraculorum

There is a relation in *Joach. Camerarius*, of ſome that have heard their Friends ſpeaking to them diſtinctly, when they have been many miles aſunder. *Habui notos homines, neque leves, & non indoctos, qui affirmabant, ſe audiiſſe ſecum colloquentes diſerte, eos quos tunc multorum millium paſſuum abeſſe certe ſcirent.* But this he juſtly refers to Diabolical Magick, and the Illuſion of Spirits.

There are other *natural* Experiments in this kind, of more eſpecial note for their Antiquity. Such was that of King *Xerxes*, related by *Cleomenes*, as he is cited by *Sardus*. Cleomedes *in libro de circulis cæleſtibus ſcribit* Xerxem *toto itinere à* Perſide *in* Græciam *ſtationes ſtatuiſſe, & in iis homines ita prope, ut vocem alterius alter exaudiret; quo modo quadraginta horarum ſpatio, ex* Græciâ *in* Perſidem *res nunciari poterat.* But this Invention, beſides

De rerum Inventor. lib. 2.

beſides the great trouble and uncertainty of it, is alſo too groſs for imitation, ſavouring ſomewhat of the rudeneſs of thoſe former and more barbarous Ages.

Much beyond it was that experiment of the *Romans*, in the contrivance of the *Picts* wall, related by our learned *Cambden*; this Wall was built by *Severus* in the North part of *England*, above a hundred miles long. The Towers of it were about a mile diſtant from one another. Betwixt each of theſe Towers there paſſed certain hollow pipes or trunks in the curtains of the wall, through which the Defendants could preſently inform one another of any thing that was neceſſary, as concerning that place wherein the enemy was moſt likely to aſſault them, *&c.*

Britan. de Vallo ſive the Picts Wall p. 654 Boter. Geog. l. 2. & l. 4. where he mentions alſo another wall of 8000 furlongs in *China.*

Since the wall is ruined, and this means of ſwift advertiſement taken away, there are many inhabitants thereabouts, which hold their Land by a Tenure in *Cornage* (as the

Lawyers ſpeak) being bound by blowing of a Horn to diſcover the irruption of the enemy.

Tabul. 9. There is another experiment to this purpoſe mentioned by *Walchius*, who thinks it poſſible ſo to contrive a trunk or hollow pipe, that it ſhall preſerve the voice entirely for certain hours or days, ſo that a man may ſend his *words* to a friend inſtead of his *writing*. There being always a certain ſpace of intermiſſion, for the paſſage of the voice, betwixt its going into theſe cavities, and its coming out; he conceives, that if both ends were ſeaſonably ſtopped, whilſt the ſound was in the midſt, it would continue there till it had ſome vent. *Huic tubo verba noſtra inſuſurremus, & cum probe munitur tabellario committamus*, &c. When the Friend to whom it is ſent, ſhall receive and open it, the words ſhall come out diſtinctly, and in the ſame order wherein they were ſpoken. From ſuch a contrivance as this, (ſaith the ſame Author) did *Albertus Magnus* make his Image, and Frier

Frier *Bacon* his Brazen Head, to utter certain words. Which conceit (if it have any truth) may ſerve ſomewhat to extenuate the groſs abſurdity of that Popiſh Relick concerning *Joſeph*'s [Hah] or the noiſe that he made (as other Carpenters uſe) in fetching of a blow; which is ſaid to be preſerved yet in a glaſs amongſt other ancient Relicks.

But againſt theſe Fancies it is conſiderable, that the ſpecies of ſound are multiplied in the Air, by a kind of continuation and efflux from their firſt original, as the ſpecies of light are from any luminous body; either of which being once ſeparated from their cauſes, do preſently vaniſh and die. Now as it would be a mad thing for a man to endeavour to catch the Sunbeams, or incloſe the light; upon the ſame grounds likewiſe muſt it needs be abſurd, for any one to attempt the ſhutting in of articulate ſounds: Since both of them have equally the ſame intrinſical and inſeparable dependance

dependance upon their efficient cauſes.

True, indeed, the ſpecies of ſound may ſeem to have ſome kind of ſelf-continuance in the Air, as in Ecchoes; but ſo likewiſe is it in proportion with thoſe of ſight, as in the quick turning round of a fire-ſtick, which will make the appearance of a fiery circle: And though the firſt kind of theſe be more laſting than the other, by reaſon their natural motion is not ſo quick, yet neither of them are of ſuch duration as may be ſufficient for the preſent enquiry.

None of all theſe inventions already ſpecified, do ſufficiently perform the buſineſs that is here enquired after; nor are they either ſo generally or ſafely appliable for all places and exigences.

The diſcovery that is here promiſed, may be further ſerviceable for ſuch caſes as theſe.

Suppoſe a Friend were perfidiouſly clapped up in ſome cloſe Dungeon, and that

that we did not know exactly where, but could only gueſs at the place, within the latitude of half a mile or ſomewhat more; a man might very diſtinctly, by theſe other inventions, diſcourſe unto him. Or ſuppoſe a City were ſtraitly beſieged, and there were either within it or without it, ſuch a Confederate, with whom we ſhould neceſſarily confer about ſome deſign; we may by theſe means ſafely dicover to him our intentions. By which you may gueſs, that the Meſſenger which is here imployed, is of ſo ſtrange a nature, as not to be barred out with walls, or deterred by enemies.

To the performance of this, it is requiſite that there be two Bells of different notes, or ſome ſuch other audible and loud ſounds, which we may command at pleaſure, as Muskets, Cannons, Horns, Drums, *&c.* By the various ſounding of theſe (according to the former Table) a man may eaſily expreſs any letter, and ſo conſequently any ſenſe. *Cap.* 9.

Theſe

Theſe Tables I ſhall again repeat in this place: That of two letters may be contrived thus:

A.	B.	C.	D.	E.
aaaaa.	aaaab.	aaaba.	aaabb.	aabaa.
F.	G.	H.	I.	K.
aabab.	aabba.	aabbb.	abaaa.	abaab.
L.	M.	N.	O	P.
ababa.	ababb.	abbaa.	abbab.	abbba.
Q.	R.	S.	T.	V.
abbbb.	baaaa.	baaab.	baaba.	baabb.
W.	X.	Y.	Z.	
babaa.	babab.	babba.	babbb.	

Suppoſe the word *Victuals* were this way to be expreſt, let the bigger ſound be repreſented by A, and the leſſer by B, according to which, the word may be thus made up by five of theſe ſounds for each letter.

V.	I.	C.	T.	U.
baabb.	abaaa.	aaaba.	baaba.	baabb.
A.	L.	S.		
aaaaa.	ababa.	baaab.		

That

That is, the leſſer note ſounded once, and then the bigger twice, and then again the leſſer twice, as (baabb) will ſignifie the letter (Y.) So the bigger once, and then the leſſer once, and after that the bigger thrice together, as (abaaa) will repreſent the letter (I,) and ſo of the reſt.

If the ſounds be capable of a triple difference, then each letter may be expreſſed by a threefold ſound, as may appear by this other Alphabet.

A.	B.	C.	D.	E.	F.	G.	H.
aaa.	aab.	aac.	baa.	bab.	bba.	bbb.	bbc.
I.	K.	L.	M.	N.	O.	P.	Q.
caa.	cba.	cbb.	cbc.	cca.	ccb.	ccc.	aba.
R.	S.	T.	V.	W.	X.	Y.	Z.
abb.	abc.	aca.	acb.	acc.	bca.	bcb.	bcc.

V.	I.	C.	T.	U.	A.	L.	S.
acb.	caa.	aac.	aca.	acb.	aaa.	cbb.	abc.

If theſe ſounds do contain a quintuple difference, then may every letter be ſignified by two ſounds only, (which will

will much conduce to the ſpeed and diſpatch of ſuch a meſſage.) As you may ſee in this other Table.

A. B. C. D. E. F. G. H. I. K. L. M.
aa. ab. ac. ad. ae. ba. bb. bc. bd. be. ca. cb.
N. O. P. Q. R. S. T. V. W. X. Y. Z.
cc. cd. ce. da. db. dc. dd. de. ea. eb. ec. ed.

V. I. C. T. U. A. L. S.
de. bd. ac. dd. de. aa. ca. dc.

De furt lit. l. 1. c. 6. 'Tis related by *Porta*, that when the Citizens in the ſiege of *Navarre* were reduced to ſuch great extremities that they were ready to yield, they did diſcover to their Friends the greatneſs and kind of their wants, by diſcharging divers Cannons and Ordinances in the night-time, according to a certain order before agreed upon; and by this means did obtain ſuch fitting ſupplies as preſerved the City.

CHAP.

CHAP. XVIII.

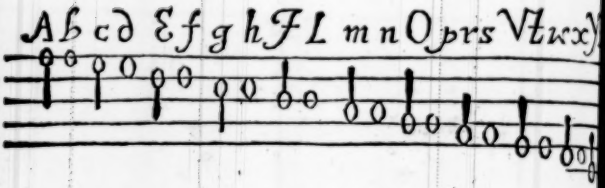
Concerning a Language that may consist only of Tunes and Musical Notes, without any articulate sound.

IF the Musical Instrument that is used to this purpose, be able to express the ordinary Notes, not only according to their different *Tones*, but their *Times* also, then may each Letter of the Alphabet be rendred by a single sound.

Whence it will follow, that a man may frame a Language, consisting only of Tunes and such inarticulate sounds, as no Letters can express. Which kind of Speech is fancied to be usual amongst the Lunary Inhabitants, who (as * *Domingo Gonsales* hath discovered) have contrived the Letters of the Alphabet upon the Notes after some such order as this:

* Or the Man in the Moon, written by the same Author of *Nuntius Inanimat:*

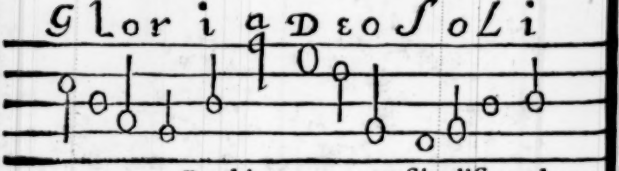
Where



Where the five Vowels are repreſented by the Minnums on each of the five lines, being moſt of them placed according to their right order and conſequence, only the letters K. and Q. are left out, becauſe they may be otherwiſe expreſſed.

See *Dom. Gonſal.* 94.

According to this Alphabet of Notes, theſe words, *Gloria Deo ſoli*, muſt be thus contrived.



By this you may eaſily diſcern how two Muſicians may diſcourſe with one another, by playing upon their Inſtruments

ments of *Muſick*, as well as by talking with their inſtruments of *Speech*. And (which is a ſingular curioſity) how the words of a Song may be contrived in the tune of it.

I ſuppoſe that theſe letters and notes might be diſpoſed to anſwer one another, with better advantage than here they are expreſſed. And this perhaps, would be eaſie enough for thoſe that are thoroughly verſed in the grounds of Muſick, unto whoſe further enquiry I do here only propoſe this invention.

But now if theſe inarticulate ſounds be contrived for the expreſſion, not of *words* and *letters*, but of *things* and *notions*, (as was before explained, concerning the univerſal Character) then might there be ſuch a general Language, as ſhould be equally ſpeakable by all People and Nations; and ſo we might be reſtored from the ſecond general curſe, which is yet manifeſted, not only in the confuſion of *writing*, but alſo of *ſpeech*.

The *utterance* of these Musical tunes may serve for the universal *Language*, and the *writing* of them for the universal *Character*. As all Nations do agree in the same conceit of things, so likewise in the same conceit of Harmonies.

This Curiosity (for ought I know) has not yet been mentioned by any Author, but it may be (if well considered) of such excellent use, as to deserve a more full and particular enlargement in a Treatise by it self.

CHAP.

CHAP. XIX.

Of thoſe common relations that concern ſecret and ſwift informations by the ſpecies of ſight, which are either Fabulous, *or* Magical.

THe uſual relations that concern ſecret and ſwift conveyances by the ſpecies of ſight, may be diſtinguiſhed into ſuch as are, either

1. *Fabulous.*
2. *Magical.*
3. *Natural and true.*

1. Of thoſe fabulous relations to this purpoſe. *Lib. 2. proluſ. 6.*

Firſt of thoſe that are *Fabulous*: In which kind, that of the Loadſtone is moſt remarkable, as it is maintained by * *Famianus Strada* in his imitation of *Lucretius* his ſtile, and divers others. The manner that is uſually preſcribed for the performance of it, is thus. Let there be two Needles provided, of an equal length and bigneſs, being both of them touched with the ſame Loadſtone: Let the letters of the Alphabet be placed in the circles on which they

are moved, as the points of the compaſs under the needle of the Mariners Chart. Let the Friend that is to travel take one of them with him, firſt agreeing upon the days and hours wherein they ſhould confer together: At which times, if one of them move the needle of his inſtrument to any letter of the Alphabet, the other needle, by a Sympathy, will move unto the ſame letter in the other inſtrument, though they be never ſo far diſtant. And thus by ſeveral motions of the needle to the letters, they may eaſily make up any words or ſence which they have a mind to expreſs.

O utinam hæc ratio ſcribendi prodeat uſu;
Cautior & citior properaret epiſtola, nullas
Latronum verita inſidias, fluvioſque morantes,
Ipſe ſuis princeps manibus ſibi conficeret rem, &c.

Saith *Strada*: But this invention is altogether imaginary, having no foundation in any real experiment. You may ſee it frequently confuted, in thoſe that treat concerning magnetical

tical vertues. *Non ſolum exhibilandi ſunt, ſed etiam male mulctandi Philoſophicâ ferulâ, fabularum iſti procuſores, qui ſuis portentis deterrent homines à præclariſſimo cauſarum ſtudio*, ſaith *Cabæus*, to this purpoſe. *Philoſop. Magnet. l. 4. c. 10.*

The firſt occaſion of theſe relations, was the proof of that ſtrange immaterial powers of the Loadſtone, whereby it did work through thick and ſolid bodies, as a Table, or Wall, or the like; as alſo of that directive vertue, whereby it always tends to the poles; from whence others have conjectured, that it might be ſerviceable alſo for ſuch a buſineſs, at ſo great a diſtance.

But againſt this, it is conſiderable,

1. That every natural agent is ſuppoſed to have ſome certain ſphere, which determines its activity.

2. That magnetical operations do not ariſe (as ſome fondly conceive) from a Sympathetical conformation of natures, which is the ſame at all diſtances; but from ſuch a diffuſion of theſe magnetical qualities through

the *medium*, that they may be continued from the Agent to the Patient. And ſo theſe natural powers will not be of ſo great an extent, as they are ſuppoſed in this experiment.

The utmoſt diſtance, at which we may diſcourſe with another by theſe magnetical vertues, is two or three foot or thereabouts; and this we may do, though it be through a wall of that thickneſs. *Fieri enim poſſe me docuit experientia, ut ope Magnetis, & inſtrumenti ad id aptati, amicus cum amico, in cubiculo proximo, trans craſſum murum (puta bipetalem) colloquatur, animi ſui ſententiam impertiat, & ad quæſita reſpondeat,* (ſaith a late Author.) But in this experiment, it is not only the ſecondary vertue of the needles that can be thus effectual (as is ſuppoſed in the former invention) but there muſt be the help alſo of the Loadſtone it ſelf.

S. Ward *magnetis Reduct.* c. 40. See Gabæus *Phil. Magn.* l. 4. c. 11.

As for the reaſon why theſe magnetical powers are able to work through ſolid bodies; 'tis conſiderable, that any quality may be diffuſed through

through such a substance, as hath no natural repugnancy unto it. We see the light does pass as well through hot bodies as cold, through solid as fluid, *&c.* only Opacity keeps it out, because that quality alone is contrary to its nature. So likewise is it with magnetical vertues, which do equally spread themselves through all kind of bodies, whether *rare* or *dense*, *diaphanous* or *opacous*, there being no quality contrary to this, because it is that general endowment of the whole globe, that universal quality to which all other particulars are naturally subservient.

The second sort of relations to this purpose, are such as refer to *diabolical Magick*; of which kind is that invention thought to be, which is commonly ascribed to *Pythagoras*, of whom it is reported, that he could write any thing in the body of the Moon, so as it might be legible to another at a great distance. *Agrippa* affirms this to be naturally possible, and the way of performing it, not unknown to himself,

2 Magical.

Occult. Philos. l. 1. c. 6.

with ſome others in his time. And *Fridericus Riſner* ſeems to believe it; for ſpeaking of the ſtrange experiments to be wrought by ſome glaſſes, he adds, *Deñique certo artificio, depictas imagines, aut ſcriptas literas, nocte, ſerenâ, plenæ lunæ ſic opponi poſſunt, ut radiis lunam irradiantibus, ideoque reflexis, videas & legas, quæ Conſtantinopoli Lutetiam tibi nuncientur.*

Optic. l. 3. prop. 36. Speculorum perſuaſio huc pervaſit, &c.

There is an experiment in Opticks, to repreſent any writing by the Sunbeams, upon a wall or front of a houſe; for which purpoſe the letters muſt be firſt deſcribed with Wax, or ſome other opacous colour, upon the ſurface of the glaſs, in an inverted form; which glaſs, afterwards reflecting the light upon any wall in the ſhade, will diſcover theſe letters in the right form and order. Unto ſome ſuch invention, I did firſt (before I had well conſidered theſe particulars) attribute the performance of thoſe ſtrange promiſes in *Nuntius inanimatus*. But upon better thoughts, it will be found, that the

World in the Moon, c. 7

ſpecies

ſpecies of reflection, in this experiment, are ſo weak, that unleſs the glaſs and the letters be very big, and the wall ſomewhat near, there will be no diſtinct appearance of the writing. And therefore this way there can be no thoughts of contriving any reflected ſpecies, that ſhall be viſible at ſo great a diſtance as the Moon. Nor is there any other natural means conceivable, by which ſo ſtrange an effect may be performed, which is the reaſon that it is ſo frequently attributed to diabolical Magick, by almoſt all the Writers that have occaſion to treat of it.

But *Agrippa* in another place ſpeaking concerning this invention, affirms that it was performed thus: *Pythagoras* did firſt deſcribe with blood any letters which he thought fit, in ſome great glaſs, and then oppoſing the glaſs againſt the full Moon, the letters would appear thorough it, as if they were writ in the circumference of her body. *Quæ collibuiſſet ſanguine perſcripſit.*

Agrippa de Vanit. Scient. c. 48.

perſcripſit in ſpeculo, quo, ad pleni luminis lunæ orbem obverſo, ſtanti à tergo, res exaratas in diſco lunæ commonſtravit. In which paſſage he ſeems to intimate, that this writing in the Moon could not be viſible at any great diſtance (as it is related in common Tradition) but that it did appear to ſuch only, betwixt whoſe eyes and the Moon this glaſs might be interpoſed. And according to this the wonder of the relation ceaſes, nor may it truly be referred to Diabolical Magick.

Joach. Camerar. Proæm. in lib. Plutarc. de defect Orac.

More properly reducible to this kind, are thoſe inchanted glaſſes mentioned in divers Authors: In which ſome Magicians are ſaid to contain ſuch familiar Spirits, as do inform them of any buſineſs they ſhall enquire after. I have heard a great pretender to the knowledge of all ſecret Arts, confidently affirm, that he himſelf was able at that time, or any other, to ſhew me in a glaſs what was done in any part of the World, what ſhips were ſailing in the *Mediterranean*, who

who were walking in any ſtreet of any City in *Spain*, or the like. And this he did aver, with all the laboured expreſſions of a ſtrong confidence. The man, for his condition, was an Italian Doctor of Phyſick; for his parts, he was known to be of extraordinary skill in the abſtruſer Arts, but not altogether free from the ſuſpicion of this unlawful Magick.

CHAP.

CHAP. XX.

Of informations by ſignificatory fires and ſmoaks. Their Antiquity. The true manner of uſing them to this purpoſe. That theſe were meant in Nuntius inanimatus.

THE Experiments of this kind that are true, and upon natural grounds, have been made either by fire in the night, or ſmoak and ſuch other ſigns viſible at a diſtance in the day-time.

Theſe informations by ſignificatory fires, have been of ancient uſe. The firſt invention of them is commonly aſcribed to *Sinon* in the *Trojan* Wars. *Speculatem ſignificationem Trojano bello Sinon invenit* (ſaith *Pliny*.) This was the ſign upon which he agreed to unlock the wooden Horſe.

Nat. Hiſt. l. 7. c. 56.

Virgil. ——— *Flammas cum regia puppis Extulerat.* ———.

But

But *Diodorus Siculus* affirms them to be practiſed by *Medea* in her Conſpiracy with *Jaſon*. And they are frequently mentioned in other ancient Hiſtorians. * *Herodotus* ſpeaks of them in the *Grecian* War againſt *Xerxes*. And † *Thucydides* teſtifies of them in the onſets that were made by the *Peloponneſians* againſt *Salamis*, and in the Siege of *Corcyra*. *Appian* ſpeaking of *Scipio* at *Numantia*, how he divided his Camp into divers Companies, ſays that he aſſigned each of them to ſeveral Tribunes, with this charge, *Si impeterentur ab hoſte, de die,* * *panno rubro in haſta ſublato ſignificarent, de nocte, igne.* If the enemy did charge any of them, they ſhould ſignifie it to the others, in the day-time by holding up a red cloth, in the night by fires. *Vegetius* affirms it to be uſual, when the Army was divided, to inform one another, in the day by ſmoak, in the night by fires. Theſe ſignificatory fires were by the *Grecians*

Bibliothec. l. 4.

* *Polymn. l.* 7. *c.* 182.

† *Hiſt. l.* 2.

Item, l. 3.

So *Curtius* of *Alex. M. l.* 5.

* To this purpoſe the flags of truce or defiance.

De re militar. l. 3. *c.* 5.

Lypſ. de milit. Roman. lib. 5. *Dialog.* 9.

Grecians called Φρύκτοι (ſaith *Suidas*) and ſometimes Πυρσεια. The uſe of them was chiefly for the anſwer of ſome particular *Quære*, that was before agreed upon; as concerning the coming of Aids or Enemies; if the Enemies were coming, they were wont to ſhake theſe Torches; if the Aids, they held them ſtill (ſaith the *Scholiaſt* upon *Thucydides*.)

Æneas Poliorcet. c. 31

Schol. in l. 2. *Thucyd.*

But they have by more exact Inventions, been enlarged to a greater latitude of ſignification. So that now, any thing which we have occaſion to diſcover, may be expreſſed by them.

Wecker de Secretis, l. 14. *c.* 1. *Port. de furt. lit. l.* 1. *c.* 10. *Cardan. de Variet. Rerum, l.* 12. *c.* 61.

The ways by which they may be contrived to this purpoſe, are divers: I ſhall ſpecifie only the chief of them.

That which in ancient times was uſed by the *Grecians*, and is particularly treated of in * *Polybius*, adviſeth thus.

* *Hiſtor. l.* 10 *juxta finem.*

By ten Torches.

Let

Let the letters be divided into five Tablets or Colums.

	I	II	III	IV	V
1	*a*	*f*	*l*	*q*	*w*
2	*b*	*g*	*m*	*r*	*x*
3	*c*	*h*	*n*	*ſ*	*y*
4	*d*	*i*	*o*	*t*	*z*
5	*e*	*k*	*p*	*u*	

Let there be provided ten Torches, five being placed on the right hand, and five on the left: Let ſo many Torches be lifted up on the right hand, as may ſhew the number of the Table; and ſo many on the left, as may ſhew the number of that letter in it, which you would expreſs: As in this following example, wherein the ſeveral numbers, both at the

the right and left hand, do ſignifie the word HASTEN.

The right hand.		The left hand.
II	H	3
I	A	1
IV	S	3
IV	T	4
I	E	5
III	N	3

That is, two lights being lifted upon the right hand, ſhew the ſecond Column; and at the ſame time three Torches appearing on the left hand, denotes the third letter in that Column which is *H*. Thus a ſingle Torch being diſcovered on both ſides, doth ſignifie the firſt letter of the firſt Column, which is *A*, and ſo of the reſt.

There

There is another way mentioned by *Joachimus Fortius*, unto the performance of which, there are only three lights required: One Torch being ſhewed alone, ſhall ſignifie the eight firſt letters, *A.B.C.D.E.F.G.H.* Two together, the eight next, *I.K.L. M.N.O.P.Q.* And all three the reſt, *R.S.T.V.W.X.Y.Z.* By three Torches. *Lib. de Experientia.*

One light being diſcovered once, ſignifies *A*; if twice, *B*: Two lights being ſhewed once, do denote the letter *I*; if twice, *K*, &c.

According to this way, if I would expreſs the word FAMINE, the Torches muſt be contrived; one light muſt be lifted up ſix times for the letter *F*; one light once for *A*; two lights four times for *M*; two lights once for *I*; two lights five times for *N*.

But here it will be requiſite that there be ſome intermiſſion betwixt the expreſſion of ſeveral letters, becauſe otherwiſe there muſt needs be a great confuſion amongſt thoſe that

belong to the ſame number of Torches. In which reſpect this way is much more tedious and inconvenient than the former invention out of *Polybius*.

By two Torches. It is eaſie to conceive, how by the Alphabet conſiſting of two letters tranſpoſed through five places, ſuch a manner of diſcourſing may be otherwiſe contrived, only by two Torches. But then there muſt be five ſhews, to expreſs every letter.

There is another way of ſpeaking, by the differences of motion in two lights; which for its quickneſs and ſpeed, is much to be preferred before any of the reſt; the manner of it is thus: Provide two Torches on long poles: Let them be placed ſo far from one another, that they may ſeem unto your confederate to be about four Cubits diſtance. By the divers elevations or depreſſions of theſe, enclining of them to the right hand, or to the left, ſeverally or both together, it is eaſie to expreſs all the Alphabet.

One

One light alone being diſcovered, muſt ſtand for *A*; lifted up, for *E*; depreſſed, for *I*; enclined to the right hand, for *O*; unto the left hand, for *V*.

Two lights elevated, for *B*; depreſſed, for *C*; enclined to the right hand, for *D*; to the left hand, for *F*.

Two lights being ſtill diſcovered, and the Torch at the right hand being lifted up, ſhall ſignifie *G*; being depreſſed, *H*; inclined to the right hand, *K*; to the left hand, *L*.

The Torch at the left hand, being elevated, ſhall ſtand for *M*; depreſſed, for *N*; inclined to the right hand, for *P*; to the left hand, for *Q*.

The Torch at the right hand being moved towards the left hand, and that at the left hand, being at the ſame time moved towards the right hand, ſhall ſignifie *R*: The right hand Torch being inclined to the left hand, and the other at the ſame time being elevated, ſignifies *S*; being depreſſed, *T*: The left hand Torch

being inclined to the right hand, and the other at the ſame time being elevated, ſignifies *W*; being depreſſed, *X*.

The right hand Torch being inclined to the right hand, and the other at the ſame time being elevated, may ſtand for *Y*; being depreſſed, for *Z*.

When any thing is thus to be expreſſed, the two Torches, being diſcovered, muſt remain without any motion, ſo long, till the Confederate ſhall by other lights ſhew ſome ſign, that he is ready to take notice. After every one of theſe particular motions, the Torches muſt be carefully hidden and obſcured, that ſo the ſeveral letters expreſſed by them, may be the better diſtinguiſhed.

The day-time Informations by ſmoak, cannot ſo conveniently be ordered according to this latter contrivance, and therefore muſt be managed by ſome of thoſe other ways that were ſpecified before: To which purpoſe

purpoſe there muſt be ſome Tunnels provided, for the orderly incloſing and conveying up the ſmoak. The other particulars concerning this, are in themſelves eaſie enough to be apprehended.

How theſe ſignificatory ſigns will be viſible at a great diſtance. How by multiplication of them in ſeveral places, they may be contrived for many ſcores of miles, will eaſily be diſcerned from the ſituation and uſe of Beacons, by which the intimations of publick danger and preparations, have been oftentimes ſuddenly ſpread over this whole Iſland. See *Barcla. Argen. l. 1.*

This may further be advantaged by the uſe of *Galilæus* his perſpective.

'Tis ſtoried of the Inhabitants in *China*, that when any Merchants do happen upon the ſhores of that Kingdom, they are preſently examined, whence they come, what Commodities they bring, and of what number they are: Which being known, *Busbequius Epiſt. Turc. ep. 4.*

the Watch (ſet for that purpoſe) do preſently inform the King of their anſwers, by ſmoak in the day, and fires in the night: Who by the ſame means does as ſpeedily return them his pleaſure, whether they ſhall be admitted or kept out: And ſo that is eaſily diſpatched in ſome few hours, which could not be performed the ordinary way, without the trouble of many days.

The practiſe of all theſe ſecret and ſwift Meſſages, may perhaps ſeem very difficult at the firſt; but ſo does alſo the Art of Writing and Reading to an unlettered man: Cuſtom and experience will make the one as facile and ready as the other. *Polyb. l.10.*

That theſe ways of information already explained, whether by the ſpecies of *ſound* or *ſight*, are the ſame with thoſe intimated in *Nuntius inanimatus*, may be clearly evident to any one who does but thoroughly peruſe that diſcourſe, and compare it with divers other the like paſſages,

of

of the ſame Author, in his *Domingo Gonſales.*

1. For the ſpecies of ſound, his words are theſe, *Auribus nihil percipi niſi perſonum, neminem fugit. Erit igitur neceſſe ut is, cui aliquid auditu mediante nunciatum fuerit, ſonos audiat, eoſque diſtinguibiles pro numero audiendorum; quæ cum ſint infinita, infinita, etiam ſit oportet, ſonorum edendorum varietas. Satis tamen erit ut diſtinguantur vel genere, vel tempore, modo etiam & numero.* Which paſſage, together with that other invention in *Domingo Gonſales*, concerning the Language of the Lunary Inhabitants, before explained in the eighteenth Chapter: I ſay, both theſe, being compared with the diſcoveries and experiments of the ſame kind that are here diſcourſed of, may plainly manifeſt, that they are both performed by the ſame means. *Nunc. Inanim.* p. 16.

2. For the Species of ſight, his words are theſe, *Si oculis amici abſentis aliquid cupis repreſentare, idque citius* *Nunc. Inanim.* p. 16.

citius quam corpus aliquod ſublunare ad locum tam longo intervallo disjunctum poſſit perferri; oportet ut ideæ, ſive formæ viſibiles, augeantur quantitate, multiplicentur numero, & pro rerum ſignificandarum varietate varientur, vel qualitate, vel quantitate, vel ſitu, vel ordine. Which paſſage being compared with that other way of compact, betwixt *Gonſales* and his Man *Diego*, mentioned in the other Diſcourſe: It may evidently appear, that the ways of intimation which were there meant, are performed after the ſame manner, according to which they are here diſcourſed of.

Man in the Moon, p. 21.

He does indeed mention out of *Buſbequius*, the practice of thoſe informations amongſt the Inhabitants of *China*, and thinks that they were uſed too by the *Romans*; but withall he wonders, how that now amongſt us they ſhould be altogether forgotten; and the reſtoring of them to theſe places and times, ſeems to be his chief aim, in the promiſes of that diſcourſe.

The

The particular example which he mentions, is this: Suppoſe that one at *London* would ſend a meſſage to *Briſtow*, *Wells*, *Exeter*, or though it were any remoter place: *Neque enim longinquitatem viæ multum moror, ſi detur facultas ſternendi, & permeabilem efficiendi.* That is, the greatneſs of diſtance can be no impediment, if the ſpace betwixt be fitted with ſuch high Mountains, and Beacon Hills, as may ſerve for theſe kind of Diſcoveries. Suppoſe (I ſay) this Meſſenger ſhould ſet forth from *London*, in the very point of noon, he would notwithſtanding arrive at *Briſtow* before twelve of the clock that day: That is, a Meſſage may by theſe means be conveyed ſo great a diſtance, in fewer minutes than thoſe which make the difference betwixt the two Meridians of thoſe places.

If according to this, we ſhould interpret that paſſage out of *Trithemius*, concerning the three *Saturnine* Angels, that in twenty four hours can convey See before Cap. 15.

convey news from any part of the World; that Author might then, in one reſpect, be freed from the aſperſion of Diabolical Magick, which for this very reaſon hath heretofore been imputed to him. But this by the way.

It may be, the reſolution of thoſe great promiſes in *Nuncius Inanimatus*, to ſuch eaſie cauſes as they are here aſcribed unto, will not be anſwerable to mens expectation, every one will be apt to miſtruſt ſome greater matter than is here expreſt: But 'tis thus alſo, in every other the like particular; for Ignorance is the mother of Wonder, and Wonder does uſually create unto it ſelf many wild Imaginations, which is the reaſon why mens Fancies are ſo prone to attribute all unuſual and unknown Events, unto ſtranger cauſes than either Nature or Art hath deſigned for them.

Concluſion.

Concluſion.

The Poets have feigned *Mercury* to be the chief Patron of Thieves and Treachery,

Horat. l. 1. Od. 10. Ovid. Metam. l. 11. Homer. in Hymnis.

Ἀρχὸς φηλητέων.

To which purpoſe they relate that he filched from *Venus* her Girdle, as ſhe embraced him in congratulation of a Victory; that he robbed *Jupiter* of his Scepter, and would have ſtoln his Thunderbolt too, but that he feared to burn his fingers. And the Aſtrologers obſerve, that thoſe who are born under this Planet, are naturally addicted to Theft and Cheating.

Nat. Comes Mytholog. l. 5. c. 5.

If it be feared that this Diſcourſe may unhappily advantage others, in ſuch unlawful courſes; 'tis conſiderable, that it does not only teach how to deceive, but conſequently alſo how to diſcover Deluſions. And then beſides, the chief experiments are of ſuch nature,

nature, that they cannot be frequently practiſed, without juſt cauſe of ſuſpicion, when as it is in the Magiſtrates power to prevent them. However, it will not follow, that every thing muſt be ſuppreſt which may be abuſed. There is nothing hath more occaſioned Troubles and Contention, than the Art of Writing, which is the reaſon why the Inventor of it is fabled to have ſown Serpents Teeth: And yet it was but a barbarous act of *Thamus*, the *Egyptian* King, therefore to forbid the learning of Letters: We may as well cut out our Tongues, becauſe that member is *a world of wickedneſs*. If all thoſe uſeful Inventions that are liable to abuſe, ſhould therefore be concealed, there is not any Art or Science which might be lawfully profeſt.

Cæli. Rhoantiq. Lect. l. 22. *c.* 15.

James 3.

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